

BEFORE THE  
ILLINOIS COMMERCE COMMISSION

COVAD COMMUNICATIONS COMPANY )DOCKET NO.  
 )00 -0312  
Petition for Arbitration Pursuant to )(CONSOL.)  
Section 252(b) of the Telecommunications)  
Act of 1996 to Establish an Amendment )  
for Line Sharing to the Interconnection )  
Agreement with Illinois Bell Telephone )  
Company, d/b/a Ameritech Illinois, and )  
for an Expedited Arbitration Award on )  
Certain Core Issues. )

RHYTHMS LINKS, INC. )DOCKET NO.  
 )00 -0313  
Petition for Arbitration Pursuant to )  
Section 252(b) of the Telecommunications)  
Act of 1996 to Establish an Amendment )  
for Line Sharing to the Interconnection )  
Agreement with Illinois Bell Telephone )  
Company, d/b/a Ameritech Illinois, and )  
for an Expedited Arbitration Award on )  
Certain Core Issues. )

ON REHEARING

Springfield, Illinois  
January 4, 2001

Met, pursuant to adjournment, at 9:30 A.M.

BEFORE:

MR. DONALD L. WOODS, Examiner

SULLIVAN REPORTING COMPANY, by  
Cheryl A. Davis, Reporter, CSR #084 -001662  
Carla J. Boehl, Reporter, CSR #084 -002710

## 1 APPEARANCES:

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6 (Appearing on behalf of Covad  
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8 Links, Inc.)

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13 (Appearing on behalf of Covad  
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20 (Appearing on behalf of Rhythms Links,  
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(Appearing on behalf of Ameritech  
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1	I N D E X				
2	WITNESSES	DIRECT	CROSS	REDIRECT	RECROSS
3	JAMES E. KEOWN				
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6	JOHN P. LUBE				
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8	CAROL A. CHAPMAN				
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12	EXHIBITS		MARKED		ADMITTED
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1 PROCEEDINGS

2 (Whereupon prior to the  
3 hearing four witnesses were  
4 sworn by Examiner Woods.)

5 EXAMINER WOODS: This is Dockets 00 -0312 /  
6 00-0313. Both are petitions for arbitration  
7 pursuant to Section 252(b) of the  
8 Telecommunications Act of 1996. Both of these  
9 matters are before the Commission on rehearing.

10 This cause was continued from  
11 yesterday's date.

12 At this time I'd take the appearances of  
13 the parties, please, beginning with the Applicants.

14 MS. HIGHTMAN: Carrie J. Hightman, Schiff,  
15 Hardin and Waite, 6600 Sears Tower, Chicago,  
16 Illinois 60606, appearing on behalf of Rhythm  
17 Links, Inc. and Covad Communications Company.

18 MR. BOWEN: Steven P. Bowen, Blumfeld and  
19 Cohen, 4 Embarcadero Center, Suite 1170, San  
20 Francisco, California 94111, appearing on behalf  
21 Rhythms Links, Inc.

22 MS. FRANCO-FEINBERG: Felicia Franco-Feinberg,

1 appearing on behalf of Covad Communications  
2 Company, 227 West Monroe, 20th Floor, Chicago,  
3 Illinois 60606.

4 MR. BROWN: Craig J. Brown, appearing on  
5 behalf of Rhythms Links, Inc., 9100 East Mineral  
6 Circle, Englewood, Colorado 80112.

7 EXAMINER WOODS: Respondents.

8 MR. BINNIG: Christian F. Binnig and Kara K.  
9 Gibney of the law firm of Mayer, Brown & Platt, 190  
10 South La Salle Street, Chicago, Illinois 60603,  
11 appearing on behalf of Ameritech Illinois.

12 MR. PABIAN: Michael S. Pabian, 225 West  
13 Randolph Street, Floor 25D, Chicago 60606,  
14 appearing on behalf of Ameritech Illinois.

15 EXAMINER WOODS: On behalf of Staff.

16 MR. HUCKMAN: On behalf of Staff, Andrew G.  
17 Huckman, Office of General Counsel, Illinois  
18 Commerce Commission, 160 North La Salle Street,  
19 Suite C-800, Chicago, Illinois. My colleague,  
20 James Weging, is ill today.

21 EXAMINER WOODS: I understand we've agreed on  
22 an order of witnesses, and Mr. Keown will be

1 proceeding.

2 MR. BINNIG: Keown.

3 EXAMINER WOODS: Keown. I'm sorry. Come on  
4 up.

5 JAMES E. KEOWN

6 called as a witness on behalf of Ameritech  
7 Illinois, having been first duly sworn, was  
8 examined and testified as follows:

9 DIRECT EXAMINATION

10 BY MR. BINNIG:

11 Q. Good morning, Mr. Keown. Could you  
12 state your full name and business address for the  
13 record?

14 THE WITNESS:

15 A. My name is James E. Keown. That's  
16 K-E-O-W-N. My business address is 1010 North  
17 St. Mary's, Room 1407, and that's San Antonio,  
18 Texas. The zip is 78215.

19 Q. And do you have in front of you three  
20 documents, the first of which has been marked for  
21 identification as Ameritech Illinois Exhibit 7.0  
22 entitled the Direct Testimony on Rehearing of James

1 E. Keown on Behalf of Ameritech Illinois, the  
2 second document which will be marked for  
3 identification as Ameritech Illinois Exhibit 7.1  
4 which is titled the Rebuttal Testimony of James E.  
5 Keown on Behalf of Ameritech Illinois, and the  
6 third document which will be marked for  
7 identification as Ameritech Illinois Exhibit 7.2  
8 entitled the Surrebuttal Testimony on Rehearing of  
9 James E. Keown on Behalf of Ameritech Illinois?

10 A. Yes, I do.

11 Q. Let's start with Ameritech Illinois  
12 Exhibit 7.0 which is the direct testimony. Was  
13 this testimony prepared by you or under your  
14 supervision and direction?

15 A. Yes, it was.

16 Q. And looking first at the typed questions  
17 and answers which are the first 19 pages I believe  
18 of Exhibit 7.0, do you have any additions or  
19 corrections you would like to make to this  
20 testimony?

21 A. Yes, I have a couple of additions. A  
22 couple of corrections need to be made to this.



1           Q.     Would you tell us what those are,  
2     please?

3           A.     The first is on page 7, line 16 of  
4     Exhibit 7.0. I'd like to insert the word "a", and  
5     the sentence would read: "would create a need for  
6     additional capital investments".

7                     The second correction is on page 17,  
8     line 10. Strike the word "that" and insert the  
9     words "needed and", so the sentence would read:  
10    "This triples the number of ports needed and would  
11    require additional OCDs to be purchased and  
12    installed."

13          Q.     Turning to the attachments to Exhibit  
14    7.0, attachments JEK-1 through JEK-3, do you have  
15    any additions or corrections to the attachments?

16          A.     No, I do not.

17          Q.     Do these attachments accurately reflect  
18    what they purport to reflect?

19          A.     Yes, they do.

20          Q.     With the corrections that you've just  
21    provided, if I were to ask you the questions that  
22    appear in the first 19 pages of Ameritech Illinois

1 Exhibit 7.0, would your answers be the same as  
2 reflected in there?

3 A. They would be.

4 Q. Let's turn to Ameritech Illinois Exhibit  
5 7.1 and 7.2. Were these two documents prepared by  
6 you or under your supervision and direction?

7 A. Yes, they were.

8 Q. Do you have any additions or corrections  
9 to make to either Ameritech Illinois Exhibit 7.1 or  
10 7.2?

11 A. No, I do not.

12 Q. If I were to ask you today the questions  
13 set forth in Ameritech Illinois Exhibits 7.1 and  
14 7.2, would your answers be the same as reflected in  
15 those documents?

16 A. Yes, they would be.

17 MR. BINNIG: I move for the admission of  
18 Ameritech Illinois Exhibits 7.0, 7.1, and 7.2, and  
19 7.0 includes the attachments JEK-1 through 3, and  
20 offer the witness for cross-examination.

21 EXAMINER WOODS: Objections?

22 MR. BOWEN: No objections, Your Honor.

1 MS. FRANCO-FEINBERG: No objections.

2 EXAMINER WOODS: The documents are admitted  
3 without objection.

4 (Whereupon Ameritech  
5 Illinois Exhibits 7.0, 7.1,  
6 and 7.2 were received into  
7 evidence.)

8 The witness is available for cross.

9 Mr. Bowen.

10 MR. BOWEN: Thank you, Your Honor.

11 CROSS EXAMINATION

12 BY MR. BOWEN:

13 Q. Good morning, Mr. Keown. Nice to see  
14 you again.

15 A. Hi, Mr. Bowen.

16 Q. I want to pick up with your direct  
17 testimony, Exhibit 7.0. Am I right that you say on  
18 page 2 of that testimony where you're asked the  
19 question have you previously filed testimony in  
20 this proceeding, you mentioned you filed an  
21 affidavit in connection with the request for a  
22 rehearing? Do you see that testimony?

1           A.     Yes, I do.

2           Q.     Okay.  Now that happened after the  
3     Commission's decision came out in this case.  Isn't  
4     that right?

5           A.     That's correct.

6           Q.     Okay.  Am I correct that you didn't file  
7     any testimony as part of the normal testimonial  
8     round of evidence in this case?

9           A.     I did not file any direct testimony or  
10    any other testimony in relation to this proceedings  
11    or other proceedings.

12          Q.     Can you tell us why that is?  Why you  
13    didn't file testimony below?

14          A.     I was not called upon to do that.

15          Q.     Okay.  So nobody asked you to file  
16    testimony?  Is that what you're saying?

17          A.     No.

18          Q.     Okay.  Did you even know about the  
19    existence of the case below when it was going on?

20          A.     Yes, I did.

21          Q.     Okay.  This is not the first time that  
22    you have testified on Project Pronto issues though,

1 is it?

2 A. This is not. That's correct.

3 Q. Didn't you testify in California on  
4 those issues?

5 A. That is correct.

6 Q. Wasn't that back in the spring in like  
7 April or May time frame of last year?

8 A. It was in May.

9 Q. Okay. All right. Now come back with  
10 me, please, to the first page of your testimony.  
11 On line 13 and 14 you testify that your current  
12 position is General Manager -Project Management -  
13 ATM /VTOA for Project Pronto. I want to just  
14 understand what those acronyms mean. What does ATM  
15 / VTOA for Project Pronto mean?

16 A. ATM is Asynchronous Transfer Mode  
17 switch, and VTOA is Voice Trunking over ATM.

18 Q. Okay. Now that sounds to me like that's  
19 -- and if I understand correctly from previous  
20 discussions we've had, that sounds to me like  
21 that's basically on the interoffice side of things;  
22 that is, from the central office out to the rest of

1 the world, including other switches. Is that  
2 right?

3 A. That is correct, but the Project  
4 Management part of my job also encompasses other  
5 aspects.

6 Q. Fair enough. But when you say VTOA, or  
7 Voice Trunking over ATM, can you tell us what that  
8 means in the SBC terminology? What does that refer  
9 to?

10 A. Part of the Project Pronto plan was to  
11 -- is to replace our TDM tandem switches with an  
12 ATM backbone type switch, and that's what the VTOA  
13 project was initially. It has changed name since  
14 then, but that's what it is.

15 Q. Okay. So in other words, instead of the  
16 circuit-switched tandem hierarchy, are you saying  
17 that as part of Pronto you plan to replace that  
18 architecture with an ATM packetized architecture?

19 A. That is being looked at.

20 Q. Okay. And that's the VTOA part of this?

21 A. That is correct.

22 Q. Okay. And you're in charge of that

1 piece. Is that right?

2 A. I'm the project manager for that part.

3 Q. Okay. Well, can you tell us just  
4 briefly how you get circuit-switched traffic from a  
5 Class 5 switch converted so it can be carried over  
6 a packetized interoffice network?

7 A. There are various manufacturers of  
8 equipment that's being trialed in lab situations  
9 today, pieces of equipment called trunk into  
10 working frames, and that equipment converts the TDM  
11 traffic to packetized data for ATM transfer.

12 Q. But you have to do that, right? When  
13 you come out of what's known as the Class 5 central  
14 office circuit switch, if you're going to run that  
15 outbound traffic over a packet-switched network,  
16 you've got to convert circuit-switched bandwidth  
17 into packetized bit streams. Is that right?

18 A. That's correct.

19 Q. Okay, and there's some equipment that  
20 you just mentioned that was going to do that in the  
21 central office. Correct?

22 A. That's being worked on.

1           Q.     Okay.  And then once it comes out of the  
2     central office, it rides fiber and goes through  
3     regular, old ATM network class switches, right?  As  
4     packets.

5           A.     Well, not network class switches.  It  
6     rides possibly a SONET-based network in a  
7     packetized manner, yes.

8           Q.     But aren't you replacing your tandem  
9     circuit switches with ATM switches?

10          A.     That is the plan.

11          Q.     Okay.  So coming out of the central  
12     office then, for interoffice purposes your plan is  
13     to have it all be ATM cells.

14          A.     That's correct.

15          Q.     Okay.  I understand.  Thank you.

16                 Now you also say that you're responsible  
17     for coordinating with SBC's Central Office the  
18     engineering organization.  What does that mean?  
19     That's on lines 17 and 18.

20          A.     Part of my responsibilities in the  
21     central office world involves project managing the  
22     budget side for them, making sure that they have



1     engineered the jobs at least from project  
2     management right, and that we have schedules for  
3     those jobs.

4           Q.     Okay. Does that include -- does your  
5     responsibility include budgetary oversight over  
6     equipment that's going to be deployed in the loop  
7     plant?

8           A.     Not directly.

9           Q.     Okay. And by loop plant, do you  
10    understand me to mean the facilities between a  
11    central office and a subscriber premises?

12          A.     That's correct.

13          Q.     Okay. And so, for example, if you think  
14    about the Litespan 2000 equipment that's going to  
15    be in RTs, remote terminals, that's in the loop  
16    plant. Right?

17          A.     That's correct .

18          Q.     Okay.

19                   Do you consider yourself a subject  
20    matter expert on fiber-fed DLC equipment deployed  
21    in the loop plant?

22          A.     I have worked around it enough to

1 understand the technical operations of the Litespan  
2 equipment, yes.

3 Q. Have you ever been directly assigned in  
4 a line position to loop plant engineering  
5 functions?

6 A. No, I have not.

7 Q. Okay. Have you ever specified the  
8 purchase of a DLC set of equipment?

9 A. No, I have not.

10 Q. How many Alcatel Litespan 2000 DLCs have  
11 you seen physically in the field yourself, have you  
12 visited?

13 A. I'm thinking. I don't know the number;  
14 four or five.

15 Q. Four or five? Okay. And in what kinds  
16 of enclosures were those four or five Alcatel  
17 Litespan 2000 's located?

18 A. One hut and cabinets for the rest.

19 Q. Were those Alcatel 2016 cabinets that  
20 you saw?

21 A. Yes, they were.

22 Q. That's the New Generation that's being

1     deployed as part of Pronto. Right?

2             A.     That's correct.

3             Q.     And how many of those were in Illinois?

4             A.     None.

5             Q.     Have you ever visited Advanced Fiber  
6     Communications UMC 1000 DLC set of equipment?

7             A.     In the labs.

8             Q.     You've visited it in the labs?

9             A.     In our TRI labs.

10            Q.     Are you familiar with the operation  
11     support systems that will support Litespan 2000 and  
12     UMC 1000 equipment?

13            A.     I have a slight understanding, but I am  
14     not totally familiar with those systems.

15            Q.     Okay. Have your ever heard the term  
16     element manager before?

17            A.     Yes.

18            Q.     What's an element manager, Mr. Keown?

19            A.     It is the operation system that  
20     typically will provision the specific network  
21     element that it's attached to.

22            Q.     Well, isn't it more correct to say that

1 an element manager is the piece of equipment or  
2 software that specifies permanent virtual circuits  
3 and permanent virtual paths in a DLC system?

4 A. That's one definition, but it does other  
5 functions besides that.

6 Q. Does it do that?

7 A. In the case of the Litespan 2000, yes,  
8 it does.

9 Q. Okay. And do you know what the element  
10 manager for the Alcatel Litespan equipment is  
11 called?

12 A. It is called the AMS.

13 Q. Do you know what that stands for?

14 A. Access Management System.

15 Q. Okay. Do you know what the element  
16 manager for the AFC UMC 1000 is called?

17 A. I'm not familiar with that one.

18 Q. Okay. Do you know what other Telecordia  
19 OSSs support the Litespan 2000 and/or the UMC 1000?

20 A. I'm not an expert in that area so I  
21 don't know the upstream systems.

22 Q. What did you say? The upstream systems?

1           A.     The systems that -- if you're talking  
2     about supporting the Litespan, I'm not an expert in  
3     that area so I don't know those.

4           Q.     Well, isn't it correct that if you're  
5     going to provision services on this architecture,  
6     you have to have OSSs to support that?

7           A.     That's true.

8           Q.     Okay. And don't you testify that there  
9     are what you assert to be significant maintenance  
10    and assignment problems if CLECs were to own line  
11    cards?

12          A.     That's true.

13          Q.     But you don't know what systems are even  
14    involved in that kind of provisioning?

15          A.     I'm not the SME on those systems. I got  
16    some of my information from the SMEs that do know  
17    those systems.

18          Q.     Okay. Would either of those SMEs be  
19    Ms. Chapman or Mr. Lube?

20          A.     No.

21          Q.     Okay. So there is no witness here that  
22    I can discuss operation support systems issues

1 with. Is that right?

2 A. Not that I'm aware of.

3 Q. Okay. All right. Now I want to take  
4 you back to the spring when the testimony was filed  
5 in this docket by people like Ms. Schlackman, for  
6 example. I believe it was probably May or June of  
7 this year, but just -- I'm sorry; last year, since  
8 it is now a new year. Take yourself back to that  
9 spring time frame just before line sharing began  
10 basically on June 6th of the year 2000. I'd like  
11 you to tell me, insofar as you know, what has  
12 changed about SBC's plans to deploy Project Pronto,  
13 if anything, from a technical perspective between  
14 then and now.

15 A. Could you clarify your question?

16 Q. Well, sure. I'm trying to -- when I say  
17 from a technical perspective, I mean -- I want to  
18 leave aside all of the FCC citations and all of the  
19 regulatory terminology about line sharing, line  
20 splitting, UNEs, and so forth. I just want to talk  
21 about the technical configuration in the deployment  
22 of Pronto. Is that clear?

1           A.     Okay.

2           Q.     Okay.  And I want you to tell me if  
3     you're aware of any differences in the deployment  
4     of Pronto between then and now; that is between the  
5     time frame when the company filed its original  
6     testimony on line sharing, again, in the April or  
7     May time frame of last year, and now.  Are you  
8     doing anything different now versus then?

9           A.     Between April of 2000 and the current  
10    time?

11          Q.     Right.

12          A.     I'm not aware of anything.

13          Q.     Okay.

14                 Now on page 3 of your direct, Exhibit  
15    7.0, at the bottom you're describing the Pronto  
16    architecture at a high level, and then you're asked  
17    the question which of these Pronto components  
18    represent new technology.  Do you see that  
19    question?

20          A.     Yes, I do.

21          Q.     And on the next page you say the NGDLC  
22    and the OCD are added components.  Again, just so

1 we have the terms correct on this record, by OCD do  
2 you mean what SBC calls an Optical Concentration  
3 Device?

4 A. Optical Concentration Device, correct.

5 Q. And by NGDLC do you mean Next Generation  
6 Digital Loop Carrier?

7 A. That is correct.

8 Q. Well, the question you were asked is  
9 which of these are new, and your answers says two  
10 of these are added. Would it be fair to say that  
11 NGDLC is not new?

12 A. It is new for the Project Pronto  
13 architecture.

14 Q. Isn't it correct that Litespan 2000  
15 equipment has been -- is deemed to be NGDLC  
16 equipment?

17 A. Only if you used the time slot  
18 interchange portion of Litespan 2000.

19 Q. Okay. Hasn't that been available and  
20 deployed in Ameritech since 1993?

21 A. The Litespan 2000?

22 Q. The TSI functionality of Litespan 2000.



1           A.     I don't know.

2           Q.     Well, you are aware, are you not, that  
3     the time slot interchange functionality of the  
4     Litespan 2000 has been available generally since  
5     1993, are you not?

6           A.     I'm aware of that.

7           Q.     Okay. You just don't know if it has  
8     been deployed here or not.

9           A.     I'm not aware how long those have been  
10    deployed in Ameritech.

11          Q.     Okay.

12          A.     And to clarify that answer, there's a  
13    difference between just having a TSI and actually  
14    using it because in a Next Generation Digital Loop  
15    Carrier system you can always just nail those time  
16    slots for the POTS service through that TSI, not  
17    really use it for time slot switching.

18          Q.     Okay. Well, I'm trying to understand  
19    what you mean when you say, you know, what is new  
20    about the NGDLC that supports Pronto. It isn't the  
21    TSI functionality since that has been around since  
22    '93, right?

1           A.     That's correct.

2           Q.     Okay.  Whether or not you actually  
3 choose to use it to assign time slots dynamically  
4 is one issue, but that functionality has been  
5 available to SBC for purchase since '93, right?

6           A.     That's correct.

7           Q.     Okay.  So that's not the new thing for  
8 Pronto.

9           A.     The actual use of the time slot  
10 switching, the time slot interchange of switching  
11 as far as establishing and tearing down those calls  
12 is the new functionality that we will be using.

13          Q.     Okay, and let's just understand what  
14 that means.  When you say nail up a circuit, what  
15 you really mean I think is to dedicate a 464  
16 kilobit or higher bandwidth on a multiplex fiber  
17 system to a particular circuit.  Is that right?

18          A.     That is correct.

19          Q.     Okay.  And isn't that how all DLC  
20 equipment prior to the time slot interchange  
21 functionality of NGDLC worked?  That is it was  
22 always nailed up?

1           A.     That is correct.

2           Q.     Okay.  It wasn't nailed up to a  
3     particular physical path.  It was nailed up to a  
4     particular set of bandwidth on a fiber system,  
5     isn't that right, if it ran on fiber?

6           A.     No.  It was nailed up to a time slot on  
7     a transmission facility.

8           Q.     Okay.  And am I right that the Litespan  
9     2000 equipment has supported OC3 level transport  
10    since '93, if not before?

11          A.     I don't know.  I'm sorry.  I don't know  
12    history.

13          Q.     Well, it's not new to Pronto, is it?

14          A.     It's not new to Pronto.

15          Q.     Okay.  Now you've heard the term time  
16    division multiplexing because you use it in your  
17    testimony, do you not?

18          A.     That's correct.

19          Q.     Is that the time slots we're talking  
20    about here?  The time division multiplexing creates  
21    dedicated time slots prior to the TSI functionality  
22    for each call path?

1           A.     I'm trying -- I don't remember exactly  
2     where in the chain that the actual time slot is  
3     dedicated, but it does dedicate a time slot through  
4     TSI.

5           Q.     Okay.  Isn't it correct that the new  
6     thing about NGDLC that Pronto is -- that is the  
7     core of Pronto on the DLC part of the network is  
8     the ability to handle ADSL in the form of ATM  
9     packets?

10          A.     That is the other new aspect of it,  
11     correct.

12          Q.     Okay.  So before that, even though you  
13     had an NGDLC deployed, whether or not you used the  
14     TSI feature or not, you could not send ADSL signals  
15     using ATM cells across that DLC.  Isn't that right?

16          MR. BINNIG:  Just to be clear, I want to make  
17     sure that you're asking that question generally.  
18     You're not asking him to assume that NGDLC was  
19     previously deployed in Illinois, because I think he  
20     already said he doesn't know.

21          MR. BROWN:  It's a general question.

22          MR. BINNIG:  Okay.

1           A.     Would you repeat the question?

2           MR. BOWEN:   Could I ask that you read it back,  
3     please?

4                                 (Whereupon the requested  
5                                 portion of the record was  
6                                 read back by the Court  
7                                 Reporter.)

8           A.     We could not send ADSL packets over the  
9     Alcatel systems prior to the upgrades.

10          Q.     Okay.   And isn't it correct that the key  
11     change that enabled that to happen or the two key  
12     changes were changing the software load for the DLC  
13     to version 10 or higher and increasing the  
14     throughput capacity of the back plate?

15          A.     There were some hardware changes also  
16     that were involved with that.

17          Q.     Okay, but are the two things I mentioned  
18     two of the key changes that enabled Project Pronto  
19     to handle ADSL signals?

20          A.     No.   The real key was the hardware  
21     change.

22          Q.     Which hardware change is that?

1           A.     Some common plug-ins in the channel  
2 banks.

3           Q.     Are you talking about the so-called ADLU  
4 cards?

5           A.     That's one of them.

6           Q.     All right. So if I expand my little  
7 universe to include ADLU cards, a higher level of  
8 the software load, and increasing the throughput of  
9 the back plate, would my question be correct?

10          A.     Along with the plug-ins, that would be  
11 correct.

12          Q.     Okay. All right. Now the OCD that you  
13 say is -- you don't say it's new. You say it's  
14 added. You can't say it's new, can you, because  
15 it's not a brand-new piece of equipment?

16          A.     That's correct.

17          Q.     Okay. Now do you know what kind of ---  
18 before I do that, this is an ATM switch, isn't it?

19          A.     That's correct.

20          Q.     Okay. Why are you calling it something  
21 different than what everybody else in the world  
22 calls it? Why did you invent a new word for this

1     thing, this OCD?

2             MR. BINNIG: Well, I object. That assumes  
3     facts not in evidence. Mr. Bowen has posited that  
4     they invented this and no one else uses this term.

5             MR. BOWEN: I'll rephrase the question.

6             Q.     Mr. Keown, have you heard anybody in the  
7     world call an ATM switch an OCD before SBC coined  
8     the term?

9             A.     That's too general of a question. I  
10    don't know.

11            Q.     Didn't SBC coin that term?

12            A.     I don't know if it was originally  
13    started with SBC or not.

14            Q.     Have you ever seen that term used  
15    anywhere before SBC used it?

16            A.     I don't recall seeing it anywhere else.

17            Q.     Okay. All right. So this ATM switch,  
18    do you know what kind of ATM switch Ameritech  
19    Illinois plans to deploy to support Project Pronto?

20            A.     Yes, I do.

21            Q.     What is that, please?

22            A.     It is a Cisco 6400.

1           Q.     Okay.  And that's different from the  
2     non- Ameritech/SBC companies where they plan to use  
3     the Lucent CBX 500 or 550?  Isn't that right?

4           A.     That's correct.

5           Q.     Now do you know why Ameritech has chosen  
6     to use a different ATM switch in this region from  
7     what SBC is using elsewhere?

8           A.     Just a company decision.

9           Q.     Well, do you know what the basis for  
10    that decision was?

11          A.     I'm not privy to all the information  
12    that went into that decision.

13          Q.     I thought you were the project manager  
14    for Project Pronto budgetary issues.

15          A.     I am, but I'm not the technical -- the  
16    new technology introduction person for Project  
17    Pronto.

18          Q.     And who would that be?

19          A.     That would be the new technology  
20    introduction group.

21          Q.     Is any witness in this case part of that  
22    group as far as you know?



1           A.     Not that I'm aware of.

2           Q.     Okay.  So am I right that the Cisco  
3     switch that you mentioned was not developed solely  
4     for use by Ameritech as part of the Project Pronto  
5     deployment?

6           A.     I'm sorry.  Could you repeat that  
7     question?

8           Q.     Yes.  Am I correct that the Cisco switch  
9     you mentioned that you're going to use for what you  
10    call the OCD is a switch that was already  
11    commercially available from Cisco for use in ATM  
12    packet-switched networks?

13          A.     That's correct.

14          Q.     Okay.  There's nothing special about it  
15    as far as you know for use as an OCD so-called?

16          A.     Nothing I'm aware of.

17          Q.     Okay.  So then isn't it fair to say that  
18    insofar as the use of NGDLC technology and ATM  
19    switches, those aren't new technology in that  
20    since, are they, as they're deployed in Pronto?  
21    You're simply using available technology to  
22    configure your network.

1           A.     Well, again, if we take the  
2     understanding that the NGDLC's capability to  
3     provide DSL service, that is new, and it is new  
4     technology.

5           Q.     Okay. But the OCDs aren't new, are  
6     they?

7           A.     The OCD is not new.

8           Q.     Okay.

9           A.     However, the way that we are using it is  
10    new.

11          Q.     You mean by offering a Broadband Service  
12    instead of a UNE?

13          A.     We offer a Broadband Service using the  
14    OCD.

15          Q.     All right. Now there's an issue in this  
16    case about -- and you testify to it, and we'll get  
17    you to some more detail -- about whether or not you  
18    can have both an OC3c -- what does that mean, by  
19    the way? What does OC3c mean? What does the C  
20    mean?

21          A.     Concatenated.

22          Q.     And by that do you mean that the entire

1 OC3 bandwidth of 155 megabits a second is not  
2 channelized but available kind of as one big chunk?

3 A. That's correct.

4 Q. Okay. And a regular OC3 is channelized?  
5 Is that right?

6 A. A regular OC3 is channelized.

7 Q. Into what kind of units?

8 A. It's multiplexed up from a DS0 to a DS1,  
9 typically to a DS3 or an ST. This is a DS3, and  
10 those DS3s are multiplexed and then converted to  
11 optical signals.

12 Q. Okay. And an OC3 is what the time  
13 division multiplex side of the DLC feeds. Isn't  
14 that right?

15 A. That's correct.

16 Q. And the ATM side, this new Project  
17 Pronto functionality in the Litespan unit that  
18 carries ATM cells, that travels on an OC3c. Is  
19 that right?

20 A. That is correct.

21 Q. Okay. Now back to my question, there's  
22 a discussion in your testimony and Mr. Lube's

1 testimony about whether or not ATM traffic in an  
2 OC3c and TDM traffic in an OC3 can ride the same  
3 physical fibers. Do you recall that?

4 A. Could you tell me where you're reading?  
5 Where you saw it in my testimony?

6 Q. Not without having to page through it.  
7 You recall testifying to that, don't you?

8 A. I do.

9 Q. Okay. These are just general questions  
10 for right now. Do you know whether the AFC, the  
11 Advanced Fiber Communications, UMC 1000 DLC product  
12 supports wave division multiplexing to allow both  
13 the ATM and the TDM signals to ride the same fiber?

14 A. I'm not aware of that.

15 Q. Okay. You're not aware of whether it  
16 does or doesn't?

17 A. I'm not aware that it will support wave  
18 division multiplexing to allow that to happen.

19 Q. Well, I'll ask Mr. Lube that question.

20 Now come down to the bottom of page 4 of  
21 Exhibit 7.0, please. Here you're talking about a  
22 Litespan 2012, 2-0-1-2. Right?

1           A.     That's correct.

2           Q.     And that's got an OC12 capacity.  Is  
3     that right?

4           A.     That's correct.

5           Q.     And that's four OC3s?

6           A.     That's correct .

7           Q.     Now what you say those four OC3s can be  
8     used for are one for the TDM traffic, one OC3c for  
9     the DSL signals, and the other two to drop DS3 or  
10    STS-1 services, to use your language.  Correct?

11          A.     Correct.

12          Q.     Isn't it also correct that the other two  
13    can be used as OC3cs for DSL signals?

14          A.     They could be.

15          Q.     Okay.  So you could have a -- in a  
16    Litespan 2012 you could have -- you're going to  
17    need one OC3 for the TDM anyway, aren't you?

18          A.     That's correct.

19          Q.     You'll always need that.

20          A.     Always.

21          Q.     But you could use up to three OC3cs for  
22    DSL traffic.  Isn't that right?

1           A.     Assuming the configuration has three DSL  
2 banks, you could do that.

3           Q.     Okay. Now with a Litespan 2000, there  
4 actually are a total of nine channel bank  
5 assemblies. Right?

6           A.     That's the maximum configuration.

7           Q.     Okay. If you think of what we have been  
8 calling elsewhere the shrink-wrapped RT, the  
9 Alcatel 2016 cabinet, that can be configured with  
10 up to nine channel banks. Right?

11          A.     The 2016 can be configured with nine  
12 channel banks.

13          Q.     And each channel bank has 56 card slots.  
14 Is that right?

15          A.     That is correct.

16          Q.     Now I think you testified to this later,  
17 and I will find the spot if you can't recall it,  
18 but it will take me some time, but I think you'll  
19 recall it. Isn't it correct that you can -- if you  
20 want to, you could run a separate fiber system out  
21 of the back of each of those line channel banks?

22          A.     I did not testify to that.

1 Q. Okay. Well, isn't that true though?

2 A. No, that is not true.

3 Q. Okay. Why isn't that true?

4 A. Because all nine channel banks would not  
5 have an optical output card.

6 Q. Okay. Which ones will?

7 A. Only those channel banks that are  
8 equipped with the right type of common plugs used  
9 for DSL would have an optical output card.

10 Q. Okay. So right now Alcatel will support  
11 up to three of the channel banks of the nine  
12 configured for DSL service. Isn't that right?

13 A. That is correct, in a cabinet  
14 configuration.

15 Q. Okay. So right now Alcatel would  
16 support fiber systems, individual fiber systems,  
17 coming out of each of those three channel banks.  
18 Isn't that right?

19 A. That is correct.

20 Q. And the rest I guess would be chained  
21 together onto the OC3 on the TDM side. Is that  
22 right? The other six?

1           A.     Not chained. They just use the back  
2 plane.

3           Q.     Okay. Poor choice of words. The other  
4 six channel banks that are serving non-ATM type  
5 traffic would all feed through the back plane into  
6 a single OC3c coming out from there. Isn't that  
7 right?

8           A.     Through the common part of the system,  
9 that's correct.

10          Q.     Okay. So you could have -- under  
11 current technology, you could have up to four fiber  
12 systems coming out of the back of an Alcatel  
13 Litespan 2000, three for ATM and one for TDM. Is  
14 that right?

15          A.     That's correct.

16          Q.     Let's talk about line card ownership  
17 now. On page 5 of your direct testimony, Exhibit  
18 7.0, you're asked a question should the Illinois  
19 Commerce Commission allow CLECs to own or designate  
20 and collocate the ADLU line card, and you have a  
21 very straightforward, simple answer of no. Is that  
22 right?



1           A.     Yes.

2           Q.     Okay.  And then you go on to explain for  
3     the rest of this testimony all the reasons why the  
4     answer should be no.  Is that right?

5           A.     I go on and explain the reasons and the  
6     technical concerns that we have.

7           Q.     Okay.  Again, this ADLU line card, can  
8     you translate for me?  What does ADLU stand for?

9           A.     ADSL digital line unit.

10          Q.     Okay.  And this is the card that you  
11     mentioned that's part of the Pronto upgrade, if you  
12     will, that, in part, allows ADSL to travel across  
13     an NGDLC system.  Is that right?  Not by itself,  
14     but that's one of the things you need.

15          A.     It is an integral part, integral sub-  
16     component of the system.

17          Q.     Okay.  And this is a card that plugs  
18     into one of these channel bank slots.  Is that  
19     right?

20          A.     That is correct.

21          Q.     And am I right that these -- if you  
22     think of a channel bank with 56 card slots, that's

1 in three rows, right?

2 A. That is correct.

3 Q. Okay. And you can plug -- all these  
4 cards are the same width, right? Whether it's an  
5 ADLU card or a POTS card or an ISDN card or an HDSL  
6 card, they're all the same width.

7 A. Physical dimensions?

8 Q. Yes.

9 A. Physically they're the same.

10 Q. And they can all plug into -- power  
11 requirements aside and everything else, they can  
12 all plug into any slot in any channel bank, right?  
13 Because all the slots are the same.

14 A. Again, if we limit this just to physical  
15 capability.

16 Q. Yes.

17 A. Nothing else that I could plug it in,  
18 yes, you could.

19 Q. Okay. And, in fact, if you think of one  
20 of the three channel banks that Alcatel says you  
21 can use for ADLU cards, those are different, in  
22 part, because they have some additional heat

1     dissipation equipment at the bottom of that channel  
2     bank. Is that right?

3             A.     That's correct.

4             Q.     Okay. And you need that because those  
5     cards throw off more heat. Right?

6             A.     That's correct.

7             Q.     In fact, isn't that the key reason why  
8     only three of the nine can be used for ADSL is that  
9     if you get more than three channel banks with DLC  
10    equipment in them, you get too much heat?

11            A.     In a cabinet configuration, that is  
12    correct.

13            Q.     Okay. At least that's the situation  
14    right now.

15            A.     As it stands today, yes.

16            Q.     As it stands today.

17            A.     That's correct.

18            Q.     So the difference -- obviously there's  
19    software that has to talk to the cards too. Right?

20            A.     That's correct.

21            Q.     But that software is part of the general  
22    software load for that DLC. Right? In other

1 words, you load version 10 or above in that DLC  
2 equipment, and then it supports DSL services in the  
3 three channel banks that can be used to put those  
4 cards into.

5 A. With the correct load of software in the  
6 common control area, yes.

7 Q. Okay. Okay. All right.

8 Now, you're familiar, are you not, with  
9 the -- in general with the SBC /Ameritech merger  
10 conditions?

11 A. In general.

12 Q. Okay. It's not going to be a legal quiz  
13 or anything, but you're familiar, are you not, with  
14 a requirement that as part of the FCC's approval  
15 for that merger, ILECs like Ameritech Illinois were  
16 not generally allowed to own advanced services  
17 equipment?

18 A. That's my general understanding.

19 Q. Okay. And that kind of ownership had to  
20 be in some kind of separate subsidiary. Is that  
21 right?

22 A. That's my general understanding.

1           Q.     And here the entity -- elsewhere it's  
2     called SBC Advanced Solutions, Inc.   here it's  
3     called AADS, right, in Illinois?

4           A.     That's correct.

5           Q.     Do you know what that stands for?

6           A.     I'm not sure I know the exact acronym.

7           Q.     Okay.   But do you know recognize those  
8     initials as being the separate data sub in  
9     Ameritech land?

10          A.     Yes, I do .

11          Q.     Okay.   Now are you aware of whether or  
12     not SBC asked the FCC for a waiver of that  
13     condition in connection with Project Pronto?

14          A.     I'm familiar with that.

15          Q.     Okay.   In fact, on February 15th of 2000  
16     didn't SBC ask the FCC for a waiver from the  
17     requirement for separate sub ownership of advanced  
18     services equipment that, if granted, would allow  
19     Ameritech Illinois, the ILEC, to own what you call  
20     the OCD and to own what you call the ADLU cards?

21          A.     Well, I think, in fact, the February  
22     15th letter asked for clarification of ownership of

1       those two components.

2           Q.     Okay.

3           A.     A clarification of interpretation.

4           Q.     Well, I don't want to split hairs with  
5       you, Mr. Keown, but didn't the request, in fact,  
6       say I want this clarified, and if you think I need  
7       a waiver, I want a waiver?

8           A.     That's correct.

9           Q.     Okay.  And isn't it correct that that  
10      waiver request or clarification request applied  
11      specifically to two pieces of equipment, the OCD  
12      and the ADLU line cards in the RTs?

13          A.     That's correct.

14          Q.     And, in effect, SBC was asking the FCC  
15      to say it's okay -- despite the merger conditions,  
16      it's okay for Ameritech Illinois to own those two  
17      types of equipment?

18          A.     I don't know if that's a fair way to sum  
19      that up, but it was -- the request was for to be  
20      able to offer advanced services, to be able to  
21      offer the Broadband Service over the Project Pronto  
22      infrastructure, we needed an understanding of

1 ownership of those two components.

2 Q. Are you saying that in February 15th the  
3 focus of your request to the FCC was concerning the  
4 wholesale Broadband Service? Is that your  
5 recollection?

6 A. Well, at that point we knew -- yes. We  
7 were asking for ownership clarification for the OCD  
8 and the ADLU cards.

9 Q. Okay. You wanted to own them as  
10 Ameritech Illinois.

11 A. Yes.

12 Q. Okay. What I want to explore with you  
13 is what if the FCC had said no? That is, what if  
14 the FCC had said you can't own --

15 MR. BINNIG: I'm going to object to the  
16 relevance at this point, Your Honor. The FCC has  
17 acted. They've issued their order, and I think  
18 we're just dealing with irrelevant speculation now.

19 MR. BOWEN: In fact not, Your Honor, because  
20 Mr. Keown's testimony goes into extreme detail  
21 about all the reasons why it would be impossible or  
22 improbable or unlikely or unmanageable for CLECs to

1 own line cards. I want to establish with this  
2 witness that throughout the planning process and  
3 initial deployment, in fact Ameritech did not have  
4 permission to own the line cards, so they must have  
5 been assuming that the conditions imposed on them  
6 would be applicable, and therefore they must have  
7 assumed that AADS would have to own those line  
8 cards.

9 EXAMINER WOODS: You can answer.

10 A. Could you repeat the question, please?

11 Q. Yes. I'll repeat it instead of asking  
12 that it be read back.

13 Q. What if the FCC had said no to SBC's  
14 request for a clarification and/or a waiver?  
15 Wouldn't that have meant that AADS, a separate  
16 company, a separate CLEC, would have had to own  
17 those line cards and those OCDs?

18 A. You have two questions in there. The  
19 first part is what if the FCC had said no. I don't  
20 know what the answer would have been to that.

21 Q. If the FCC had said we deny your request  
22 for a waiver, wouldn't that mean that the merger



1 conditions would then apply?

2 A. I don't know.

3 Q. Well, let's assume that they would. All  
4 right? Let's assume that the merger conditions  
5 would apply, and assume further that the merger  
6 conditions without change would have required  
7 somebody besides Ameritech Illinois to own those  
8 line cards. Can you assume those two things with  
9 me?

10 A. Okay.

11 Q. Okay. That would be AADS, wouldn't it?

12 A. I don't know. What you're asking me to  
13 do is assume what the company would have done or  
14 set company policy or what the strategy of the  
15 company would have been had that decision gone  
16 another way. I don't know what the answer to that  
17 question would be, Mr. Bowen. I'm sorry.

18 Q. Well, okay. Let's back up a step  
19 further then. Do you know when Project Pronto was  
20 first contemplated via a RFP?

21 A. Generally.

22 Q. Wasn't the RFP issued in March of 1998?

1           A.     I'm not sure of that specific date.

2           Q.     It was in the spring of 1998, wasn't it?

3           A.     I'm not sure of when the RFP was issued.

4           Q.     Well, it was in the year 1998, wasn't  
5     it?

6           A.     Well, my recollection and my first  
7     involvement with Pronto was 1999.

8           Q.     I didn't ask about your involvement  
9     personally, Mr. Keown. I asked about when the RFP  
10    was issued.

11          A.     And I said I don't know.

12          Q.     You don't know. Okay. Didn't the board  
13    approve Project Pronto in June of 1999?

14          A.     I don't know.

15          Q.     Do you know whether the board ever  
16    approved Project Pronto?

17          A.     I don't know.

18          Q.     Do you know when the company first  
19    announced Project Pronto to the investor community?

20          A.     It was October of 1999.

21          Q.     That would be the famed investor  
22    briefing. Do you recall that document?

1           A.     Yes, I do.

2           Q.     And we've talked about this before,  
3 haven't we?

4           A.     Yes, we have.

5           Q.     Okay. Isn't it correct that there is no  
6 mention whatsoever in that investor briefing of any  
7 condition such as we'll do this so long as the FCC  
8 approves our request for clarification and/or  
9 waiver, which we intend to file real soon now?  
10 Nothing like that appeared in that disclosure.  
11 Isn't that right?

12          A.     I'm not aware of anything.

13          Q.     Okay. And, in fact, didn't the  
14 disclosure say that SBC was going to deploy Project  
15 Pronto based on maintenance cost savings alone?  
16 That is, that maintenance cost savings would  
17 themselves pay back in full the \$6 billion  
18 investment SBC planned to make in 13 states?

19          A.     I believe those words are in there.

20          Q.     Okay. Now you're generally familiar  
21 that companies that have common stock like SBC are  
22 required by the Securities and Exchange Commission

1 to be forthcoming and honest with their investors?

2 MR. BINNIG: Calls for a legal conclusion. I  
3 object.

4 MR. BOWEN: No, I am not asking for a legal  
5 conclusion.

6 MR. BINNIG: I understand that, but I'm still  
7 objecting that it calls for --

8 MR. BOWEN: I'll ask for a non-legal  
9 conclusion or non-legal answer to that question.

10 EXAMINER WOODS: You can answer.

11 A. I'm not sure what the requirements are.

12 Q. Well, are you generally aware that the  
13 SEC requires communications to investors in a  
14 publicly held company to be honest and forthright?

15 A. I would assume as much.

16 Q. Okay. Are you saying that had the FCC  
17 not granted the waiver, the company would not have  
18 deployed Project Pronto?

19 MR. BINNING: I'll object to the question. I  
20 think he has already answered it by saying he  
21 doesn't know what the company would have done.

22 EXAMINER WOODS: You can answer.

1           A.     I reiterate my answer earlier. I really  
2     don't know what the company would have done.

3           Q.     All right. Well, you're not asserting  
4     affirmatively then that the company would have  
5     stopped Pronto deployment if the FCC had denied the  
6     waiver, are you?

7           A.     I'm saying I don't know what the company  
8     would have done.

9           Q.     Okay. Well, let's assume that the  
10    company would have proceeded to try and, in effect,  
11    safe \$6 billion by deploying Pronto even in the  
12    face of not being granted a waiver. Can you assume  
13    that with me?

14          MR. BINNIG: I'm going to object to the  
15    question as, again, assuming facts not in evidence.  
16    The characterization of this saving \$6 million  
17    assumes \$6 million --

18          MR. BOWEN: Billion.

19          MR. BINNIG: Billion, assumes \$6 billion has  
20    been spent. I don't think that's part of the  
21    record.

22          MR. BOWEN: I guess I'm not clear on the

1 objection of counsel, Your Honor.

2 MR. BINNIG: Well, it assumes facts not in  
3 evidence. That's my objection.

4 MR. BOWEN: It's a hypothetical.  
5 Hypotheticals always assume facts not in evidence.

6 I'll withdraw the question, Your Honor.

7 Q. If the FCC had said that AADS and other  
8 CLECs had to own the line cards, Mr. Keown, do you  
9 believe that SBC would have found a way to make  
10 that happen?

11 A. Again, Mr. Bowen, I don't know what the  
12 company would have done.

13 Q. Well, you're the project manager for a  
14 good portion of this. At least that's your  
15 testimony. I'd like your expert assessment as to  
16 whether had the FCC denied the waiver request and  
17 required AADS and other CLECs to own the line  
18 cards, would SBC have found a solution to allow  
19 that to happen and allow Pronto to proceed?

20 MR. BINNIG: I think he has answered this now  
21 several times.

22 EXAMINER WOODS: We'll try one more time, but

1 I think he has answered this.

2 Q. Okay.

3 A. I'm the project manager, but I don't  
4 make company policy. I implement it.

5 Q. Okay. Let's come back now to the  
6 configuration of the Litespan unit. On page 6 and  
7 7 you've got some numbers here, and I want to focus  
8 your attention on lines 26 and 27 of page 6.  
9 You're talking here about the Alcatel Litespan  
10 unit. Is that right? In this answer?

11 A. That's correct.

12 Q. Okay. I'm going to quote a sentence  
13 that you have in your testimony here. You say,  
14 "The largest cabinet configuration for the Litespan  
15 contains three channel banks in a fully equipped  
16 system." That's not right, is it? I think it's  
17 nine, not three.

18 A. That's correct. It should be three DSL  
19 channel banks.

20 Q. Okay. We've talked about that before,  
21 and what you mean by that I take it is that under  
22 the currently supported configuration, only three

1 of the nine channel banks can be used for ADLU  
2 cards. Is that right?

3 A. That's correct, and in the sentence  
4 above it says, "For the Alcatel Litespan equipment,  
5 each channel bank used for --

6 EXAMINER WOODS: Slower, slower, especially  
7 when you read.

8 A. I'm sorry. "For the Alcatel Litespan  
9 equipment, each channel --

10 EXAMINER WOODS: That's not that much slower.

11 (Laughter)

12 A. My mistake. "For the Alcatel Litespan  
13 equipment, each channel bank used for DSL has 56  
14 slots."

15 Q. Okay.

16 A. And that sentence goes from there.

17 Q. Okay. But we're in agreement that we're  
18 talking about nine total channel banks, three of  
19 which can be used right now for DSL. Right?

20 A. That's correct.

21 Q. Okay. And there you've got the three  
22 channel banks equating to 168 slots. That's 56



1 times 3 basically. Right?

2 A. That's correct.

3 Q. Okay. Then you say each slot has four  
4 ports, and I wanted to ask you about that. I  
5 thought that right now, diversion of software and  
6 the cards that you are deploying only support two  
7 DSL appearances per card. Isn't that right?

8 A. The card itself, we are wiring out four  
9 pairs per slot.

10 Q. Okay. But the cards you plug in there  
11 right now only support two DSL end user customers.  
12 Right?

13 A. That's correct.

14 Q. Okay. All right. And do you know what  
15 software release from Alcatel supports two versus  
16 four appearances per card by any chance?

17 A. The current version 10.1.3, which is  
18 we're going up on, supports two. 11.0 will support  
19 four.

20 Q. Okay. And do you know when release 11  
21 is going to be issued by Alcatel?

22 A. Second quarter of '01.

1           Q.     Okay.  And that 's for initial testing by  
2     SBC.  Is that right?

3           A.     That's for initial testing.

4           Q.     Okay.  All right.  Now let's come back  
5     to this long list you have here on page 9 and 10 of  
6     all the bad things that might happen if this  
7     Commission let's Rhythms and AADS and Covad own  
8     line cards.  Do you see that list there on 9 and  
9     10?

10          A.     Yes, I do.

11          Q.     Okay.  I don't want to talk about all  
12     these things, but I want to talk about a couple.

13          A.     Okay.

14          Q.     On number 3 on the hit parade here it  
15     says, and I'm going to quote you, "If a Project  
16     Pronto NGDLC was the available serving facility, a  
17     collocation application would have to be filed for  
18     'slot' space."  Do you see that?

19          A.     Yes, I do.

20          Q.     Are you saying there that your  
21     contemplation is that Rhythms would have to file a  
22     separate collocation application for every card it

1     wanted to put in every slot in every NGDLC in  
2     Illinois?

3           A.     I don't know that it would have to be  
4     for every slot, but something would have to be  
5     filed I would assume for collocation.

6           Q.     But the question really focuses on are  
7     you suggesting that the only way to do this is to  
8     file a separate application for every card you want  
9     to put in to an NGDLC?

10          A.     And I think my answer was I don't know  
11     if it has to be for every slot, but something I  
12     would assume has to be filed for collocation.

13          Q.     So you think it might be possible to  
14     file one application to cover the entire state?

15          A.     I don't know the answer to that one.

16          Q.     You haven't thought about that?

17          A.     No, I have not.

18          Q.     Okay. On number 4, I'm going to quote  
19     this again for the record, you say, "The CLEC would  
20     then place an order to ship a line card to  
21     Ameritech Illinois." Do you see that?

22          A.     Yes, I do.

1           Q.     Are you saying that you contemplate that  
2     the only way to do this is for CLECs to order line  
3     cards from Alcatel one at a time?

4           A.     This is actually for the CLEC to place  
5     an order to ship a line card to Ameritech Illinois  
6     to have available to plug in to a slot.

7           Q.     Right. Who is the order with?

8           A.     Ameritech Illinois.

9           Q.     Well, no. Your sentence says CLECs  
10    would place an order to ship a line card to  
11    Ameritech Illinois. Doesn't that indicate that the  
12    order is going to someplace else like Alcatel, for  
13    example?

14          A.     Well, there has to be some kind of work  
15    request for that plug and that card to be shipped  
16    and to be cataloged into Ameritech Illinois'  
17    location. There would have to be some kind of  
18    record on Ameritech Illinois' side, and that that  
19    record would be a service order of some type.

20          Q.     Well, I'm just trying to understand your  
21    own testimony, Mr. Keown. Who is this order being  
22    placed with?

1           A.     Ameritech Illinois.

2           Q.     And for what?   What's the order for?

3           A.     To acknowledge or to receive a plug-in  
4     from a CLEC.

5           Q.     So in your list you contemplate that we  
6     would have to tell you that we're going to be  
7     sending you a line card?

8           A.     There would have to be some kind of  
9     record kept that you're going to be sending a  
10    plug-in, yes.

11          Q.     Well, couldn't we simply say here's a  
12    hundred of these things; put them in the inventory?

13          A.     Whose inventory?   That's the question  
14    that we have to ask.   Whose inventory would it be  
15    in?

16          Q.     Well, I get to ask the questions, but  
17    I'll ask questions that will elicit the right  
18    answer then.   Okay?   It's possible -- you  
19    understand that we're asking for the choice of  
20    either physical or virtual collocation of these  
21    cards, do you not?

22          A.     That's my understanding.

1           Q.     Okay.  If it's virtual collocation, what  
2     does that mean?  Does that mean that we transfer  
3     ownership of these assets to you for a dollar?

4           A.     That's one form of virtual collocation.

5           Q.     Okay.  So couldn't we order a hundred of  
6     these and say here's a hundred cards, I want to do  
7     a virtual collocation of these things, you know,  
8     give me \$100, and put them in your inventory?

9           A.     I haven't thought of that one.

10          Q.     Well, that would be more efficient,  
11     would it not, than ordering cards one at a time?

12          A.     I haven't thought through it enough,  
13     Mr. Bowen.

14          Q.     Okay.

15                 Let's come to number 10 on page 10 then,  
16     please.  I want to read this again for the record  
17     for context.  Quoting you here, "Because Ameritech  
18     Illinois' provisioning systems as they exist today  
19     would not have knowledge of what line cards were  
20     owned or controlled by what CLECs, the service  
21     order would have to be handled manually to ensure  
22     proper assignment of the DSL service to the CLEC's

1 slot and port." Do you see that?

2 A. Yes, I do.

3 Q. Okay. Now I think there's some careful  
4 wording in here. When you say as they exist today,  
5 you don't mean to indicate that you don't think  
6 it's possible to change those systems, do you?

7 A. Some of it is possible.

8 Q. Okay.

9 A. With the right money and resources.

10 Q. Okay. In fact, isn't it correct that  
11 Telecordia is one of your major OSS vendors for all  
12 services?

13 A. That's my understanding.

14 Q. Okay. You've heard of LFACS and TIRKS  
15 and SWITCH and systems like that, have you not?

16 A. Yes, I have.

17 Q. Do you recognize those acronyms as being  
18 Telecordia systems?

19 A. Those are.

20 Q. Do you recognize those systems as being  
21 used for provisioning line shared services?

22 A. They're used for more than line shared

1 services.

2 Q. I understand that, but aren't they also  
3 used to provision line shared services?

4 A. That question is probably better served  
5 to a true provisioning person.

6 Q. And who would that be amongst your  
7 witnesses here today?

8 MR. BOWEN: I think that's already in the  
9 record in this case.

10 MR. BOWEN: Okay.

11 Q. Isn't it correct, Mr. Keown, that  
12 Telecordia had to modify a number of its operation  
13 support systems to support line sharing?

14 A. I'm not familiar with all the  
15 modifications that were required.

16 Q. Have you ever heard of a Telecordia --  
17 I'm sorry -- an SBC requirements document OLS 560  
18 specifying required changes from Telecordia?

19 A. I'm not familiar with that document.

20 Q. Okay. Do you know whether or not -- you  
21 say that you would have to do these kinds of orders  
22 manually because the systems won't currently



1 support mechanized assignment. I guess that's the  
2 point there. Is that right?

3 A. Flow-through provisioning will not be  
4 supported.

5 Q. And by flow-through do you mean  
6 mechanized processing of orders that don't involve  
7 humans normally?

8 A. That's correct.

9 Q. Okay. All right. And when was the  
10 waiver request granted? Do you recall? Wasn't it  
11 September of this past year?

12 A. September 2000.

13 Q. Okay.

14 A. I don't remember exactly.

15 Q. Was that in one of your footnotes  
16 someplace in here?

17 A. It might be.

18 Q. Okay. Don't go looking now, please.

19 Well, up until September, it would be  
20 fair to say that you had no assurance that your  
21 waiver request would be granted. Isn't that right?

22 A. That's correct.

1           Q.     Okay.  At the same time isn't it correct  
2     that you were working with Telecordia, you know,  
3     making your requests for changes to their system  
4     that would support your Project Pronto roll-out and  
5     line sharing in general?

6           A.     I don't know about the line sharing  
7     part.

8           Q.     Well, let's assume that you asked  
9     Telecordia for the line sharing part, but you  
10    certainly asked them for support and modifications  
11    to support Pronto, didn't you?

12          A.     That's correct.

13          Q.     Well, do you know whether or not  
14    Ameritech or SBC asked Telecordia for a mechanized  
15    solution for assignment if CLECs were to own the  
16    line cards?

17          A.     I don't know.

18          Q.     Well, if they didn't ask -- if you  
19    didn't ask for that kind of solution, I guess that  
20    would mean that you just assumed that you would win  
21    the waiver request.

22          A.     No.

1 Q. Right?

2 MR. BINNIG: I think it is an irrelevant  
3 question, and I think it's an argumentative  
4 question, and I'll object on both those grounds.

5 EXAMINER WOODS: Counsel, it is argumentative.

6 MR. BOWEN: Okay.

7 Q. Well, Mr. Keown, if the merger  
8 conditions were in place that required AADS to own  
9 advanced services equipment, and if you wanted to  
10 have flow-through provisioning on Project Pronto,  
11 wouldn't you need to have a mechanized solution  
12 developed by Telecordia to support that?

13 A. I don't know how to answer that  
14 question, Mr. Bowen, because that assumes that the  
15 company would have to look at what it was doing, if  
16 it was going to continue with the build, and a  
17 whole lot of other decisions would have to be made  
18 before that determination would be made. A lot of  
19 determinations would have to be made before we  
20 could proceed.

21 Q. Well, you are aware, are you not, that  
22 the number of DSL services that SBC contemplates,

1 as announced in the investor briefing, is in the  
2 hundreds of thousands if not the millions of DSL  
3 lines in service?

4 A. In service?

5 Q. Under Project Pronto.

6 A. I don't know what numbers were quoted in  
7 the investor briefing.

8 Q. You don't recall any statements at all  
9 about the level of penetration that SBC expected in  
10 the total investor community. Is that your  
11 testimony?

12 A. I don't remember the exact number. I  
13 know we had a million lines anticipated.

14 Q. Okay. Well, let's assume that the  
15 million is the right number for discussion  
16 purposes. You can't roll out a million lines  
17 unless you can do flow-through provisioning, can  
18 you?

19 A. It would be awfully difficult.

20 Q. In fact, wasn't flow-through  
21 provisioning one of the aspects that SBC needed as  
22 part of Pronto?

1           A.     Correct.

2           Q.     Okay.  But you don't know whether or not  
3     SBC even asked its vendors to support flow-through  
4     provisioning under either scenario, that is whether  
5     an ILEC owned the card or a CLEC owned the card?

6           A.     I don't know.

7           Q.     Okay.

8                     Then you get into what you claim are  
9     maintenance problems if CLECs own the card on page  
10    10 and 11.  Do you have that there?

11          A.     Yes, I do.

12          Q.     Okay.  And at page 11, lines 4 and 5,  
13    you say, and I'm quoting you here again, "If the  
14    ADLU line card needs to be changed, the CLEC would  
15    have to provide a maintenance spare to change out  
16    the defective line card."  And then you say,  
17    "Tracking these maintenance spares would place  
18    undue responsibility on Ameritech Illinois."  Do  
19    you see that?

20          A.     Yes, I do.

21          Q.     Okay.  What is -- I don't understand  
22    what the problem you're asserting is with Rhythms

1 giving Ameritech maintenance spares. What's the  
2 problem?

3 A. Well, depending on the scenario used,  
4 Mr. Bowen, if Ameritech Illinois does not own the  
5 line card, then it becomes an unowned asset, and in  
6 order for that maintenance spare to be there, it  
7 has to be inventoried and kept up with by Ameritech  
8 employees and systems or something so that it could  
9 be tracked. If it is a defective card, it has to  
10 be shipped to an Ameritech warehouse or to some  
11 location that it can be picked up such that it can  
12 be swapped out, the defective card, and then  
13 shipping arrangements made back to Rhythms or  
14 whatever the CLEC, whatever CLEC owned the line  
15 card.

16 Q. Okay, and there you're talking about a  
17 physical collocation scenario where Rhythms  
18 actually would own the line card, right?

19 A. Where Rhythms or a CLEC owned the line  
20 card.

21 Q. Okay. Now what are the maintenance  
22 spare issues if it's a virtual collocation

1 scenario, if any?

2 A. That's very similar to your provisioning  
3 question, and I have not thought that through.

4 Q. Have you thought about it at all?

5 A. Not enough in great enough detail. I'm  
6 sorry.

7 Q. Okay. Well, isn't it correct that for  
8 quite a number of years, in fact a number of years  
9 before the Telcom Act was even passed in '96, that  
10 Ameritech Illinois has offered virtual collocation  
11 in central offices?

12 A. I'm not sure of the dates.

13 Q. I wasn't asking for the date, Mr. Keown.  
14 Isn't it correct that virtual collocation has been  
15 offered by Ameritech prior to the passage of the  
16 Telcom Act of '96?

17 A. I'm not sure.

18 Q. Okay. Let's assume that that's true.

19 A. Okay.

20 Q. Don't you have to -- if you are going to  
21 be offering virtual collocation in a central  
22 office, isn't what I already described here? That

1 is that the CLEC purchases a particular piece of  
2 equipment and sells it to you for a dollar and then  
3 you put it in a rack and maintain it and so forth?  
4 Isn't that how it works?

5 A. I'm not a virtual collocation expert, so  
6 I don't know the answer to that.

7 Q. Well, you're testifying about how hard  
8 it would be to do collocation at the RT, aren't  
9 you?

10 A. I'm testifying about how hard it would  
11 be to do card ownership at the RT.

12 Q. In fact, you testify about virtual  
13 collocation on page 10 of your testimony at lines  
14 13 through 15, don't you?

15 A. Yes, I do.

16 Q. Okay.

17 A. But that is assuming that the CLEC still  
18 owns the card, not just that the asset has been  
19 transferred to Ameritech Illinois.

20 Q. I'm sorry. I didn't hear that answer.

21 A. That's the form of virtual collocation  
22 where the CLEC still retains ownership of the card.



1           Q.     And which form would that be? Which  
2     form of virtual are you talking about?

3           A.     Well, it's not a transferred asset.

4           Q.     Are you testifying that in Illinois,  
5     Ameritech Illinois offers a virtual collocation  
6     option where a CLEC retains ownership of a piece of  
7     equipment?

8           A.     Again, I'm not a virtual collocation  
9     expert, so I don't know the answer.

10          Q.     Well, there is a kind of virtual  
11     collocation where ownership of the asset is  
12     transferred to the ILEC for a dollar. Isn't that  
13     right?

14          A.     For some sum.

15          Q.     For some sum, some minor sum. So are  
16     you testifying that you have no knowledge at all  
17     about how virtual collocation works on maintenance  
18     issues in a central office context?

19          A.     I'm not versed enough in it to be able  
20     to testify to that.

21          Q.     Okay. Well, it's possible, is it not,  
22     that if Ameritech has actually managed to offer and

1     deploy virtual collocation in Illinois in central  
2     offices, that it has procedures in place that make  
3     that work? Isn't that a fair assumption?

4             A.     I would guess that's a fair assumption.

5             Q.     Okay. And isn't it fair to assume that  
6     whatever provisioning and maintenance issues might  
7     have existed initially with central office space  
8     virtual collocation have now been addressed by  
9     Ameritech?

10            A.     I would think that would be true, but I  
11     think there's a big difference in that the  
12     equipment that you purchase for central office  
13     would be a complete component of equipment instead  
14     of a plug-in, for instance, that you would be  
15     looking at.

16            Q.     So what you're saying is I take it it's  
17     a lot harder to maintain CO-based equipment than to  
18     simply replace line cards in RTs.

19            A.     I think what I'm saying is that I think  
20     that if you own an entire piece of equipment, that  
21     work on that entire piece of equipment that belongs  
22     to one company, whose customers ride on that one

1 piece of equipment, it's a lot more -- a lot easier  
2 to work on than if several customers worked on the  
3 same piece of equipment.

4 Q. Well, what is maintenance in a line card  
5 context? Isn't it nothing more than taking a  
6 defective card out and putting a good card in?  
7 That is, you don't go out there and mess with the  
8 printed circuit board and mess with the components  
9 on the card, do you? You simply take the card out  
10 that's bad and put a new one in.

11 A. Typically, but if you have more than one  
12 customer working on that card, you have to do more.  
13 You have to take into consideration the customer's  
14 service on the other side. For instance, you  
15 mentioned that these cards are dual-port or  
16 two-port cards. You have to take into  
17 consideration the customer service on the other  
18 side of that card.

19 Q. Fair enough, but the actual, physical  
20 act of maintenance is simply replacing the card,  
21 right?

22 A. That's correct.

1           Q.     Okay.  And there's a lot more kinds of  
2     maintenance and testing that can happen on central  
3     office-based equipment that's virtually collocated.  
4     Isn't that right?

5           A.     That's possible.

6           Q.     Okay.  Now on page 11 again, line 9, you  
7     say the technicians -- I assume you mean there  
8     Ameritech Illinois technicians -- the technicians  
9     would be required to identify the owner or  
10    designator of the line card.  Do you see that?

11          A.     Yes, I do.

12          Q.     It certainly is possible to have  
13    operation support systems record that information  
14    and have it available to technicians, isn't it?

15          A.     Our current operation support systems  
16    don't.

17          Q.     I wasn't asking about current.  I said  
18    it's possible to -- if they don't do it right now,  
19    it's possible to modify them so that they can show  
20    that, isn't it?

21          A.     Again, given the dollar resources and  
22    people, it is possible.

1           Q.     Okay.  Let's look at page 12 now.  Here  
2     are some more technical issues that you assert will  
3     be associated with CLEC ownership of a line card,  
4     and I don't understand your answer at line 20  
5     through 22.  You say, "As a result, even if a CLEC  
6     bought or designated a line card from the vendor  
7     that manufactured the NGDLC, there is no guarantee  
8     that the card will deliver the service expected by  
9     the CLEC."  Do you see that?

10          A.     Yes, I do.

11          Q.     All right.  So let's assume that this  
12     Commission says, Rhythms, you can own the line  
13     cards, and so Rhythms goes to Alcatel and says I  
14     want an ADLU card that I can plug in to an  
15     Ameritech Illinois Project Pronto NGDLC, a Litespan  
16     2000.  Are there more than one of those out there  
17     to buy?

18          A.     The context of reading this is -- you  
19     mentioned earlier about the quad cards versus the  
20     dual cards, and this example is intended to point  
21     out that you could buy a line card from Alcatel.  
22     The quad card might be manufactured today, but if

1 the software is not available in the Litespan  
2 systems to handle the Alcatel voice presence, it  
3 won't work, so that's the context of this answer.

4 Q. What I want to know very simply is, how  
5 many kinds of ADLU cards can I buy from Alcatel  
6 today? Isn't it one?

7 A. You can buy two -- actually two flavors.

8 Q. And what are the two flavors?

9 A. One is a CAP, C-A-P, version and the  
10 other is a DMT.

11 Q. Okay. Those are two different line  
12 coding DSL technologies. Is that right?

13 A. That's correct.

14 Q. And do you know which of the two Project  
15 Pronto is using for the ADLU cards?

16 A. Yes, I do.

17 Q. Which is that?

18 A. The DMT.

19 Q. Okay. So if Rhythms goes to Alcatel and  
20 says I want to put -- I've gotten the right to put  
21 my cards into Illinois in the Ameritech Illinois  
22 Pronto Litespan 2000's, I know and you know that

1     that requires DMT ADLU cards, it's a choice of one  
2     then, right? Once you decide that you want to use  
3     what everybody already knows, that the TDM version  
4     is what you're using, when you go to buy a card  
5     there's only one on the list. Isn't that right?

6           A.     That's correct.

7           Q.     Okay. So if I buy that one DMT card,  
8     it's going to work in the Litespan, isn't it?

9           A.     That's correct.

10          Q.     Okay. So insofar as there is any  
11     guarantee from Alcatel on what it sells to its  
12     customers, including Ameritech Illinois, it will  
13     work just as well for us as it will for you if you  
14     own the card. Isn't that right?

15          A.     Technically that's correct.

16          Q.     Okay. Let's move on now to page 13 and  
17     talk about quality of service.

18           EXAMINER WOODS: Is this a new area?

19           MR. BOWEN: Pardon me?

20           EXAMINER WOODS: Is this a new area?

21           MR. BOWEN: Yes.

22           EXAMINER WOODS: Let's take ten minutes.

1 MR. BOWEN: Okay.

2 (Whereupon a short recess  
3 was taken, during which time  
4 Ameritech Exhibits 7.0, 7.1,  
5 and 7.2 were physically  
6 marked for identification by  
7 the Court Reporter.)

8 EXAMINER WOODS: Back on the record.

9 MR. BOWEN:

10 Q. Okay, Mr. Keown. Let's turn now to your  
11 testimony, your direct testimony, beginning at page  
12 13, where you talk about ATM quality of service or  
13 QoS classes. Do you see that?

14 A. Yes, I do.

15 Q. Okay. Now this term QoS, am I right  
16 that this is a term that's understood and used and  
17 applied by everybody who has ATM equipment?

18 A. It is typically an ATM class of quality  
19 of service acronym, yes.

20 Q. Okay. And here you talk about what you  
21 say are the most common ATM quality of service  
22 classes that you refer to as Constant Bit Rate, or



1     CBR, Variable Bit Rate, both real time and near  
2     real time, and those abbreviations are VBR-rt and  
3     VBR-nrt. Do you see those?

4             A.     Yes.

5             Q.     In fact, I left out Unspecified Bit  
6     Rate, or UBR. Those are the ones that you put  
7     forward here as the most common ones, right?

8             A.     That's correct.

9             Q.     So I'm going to use the same acronyms  
10    that you use here because you describe what they  
11    are in your testimony.

12            A.     Sure .

13            Q.     Are there others that you're aware of  
14    besides CBR, VBR-rt, VBR-nrt, and UBR?

15            A.     I've read one other.

16            Q.     And that's what one?

17            A.     Available, ABR.

18            Q.     Okay. Now am I right that these quality  
19    of service classes are -- the parameters of them  
20    are defined by industry groups like the so-called  
21    ATM Forum?

22            A.     That's correct.

1           Q.     Okay.  In fact, what about the ITU?  Do  
2     they define quality of service levels or classes as  
3     well?

4           A.     They do, but the acronyms are different.

5           Q.     So these acronyms I take it then are ATM  
6     Forum quality of service acronyms.  Is that right ?

7           A.     That's correct.

8           Q.     And are the ATM Forum quality of service  
9     classes that you have here plus the Available Bit  
10    Rate version, are those the ones that are commonly  
11    used in the United States amongst providers of ATM -  
12    based services?

13          A.     Yes.

14          Q.     Okay.  So we're going to leave the ITU  
15    things aside, even though they are out there.  It's  
16    bad enough just with these four or five.

17                 Am I right that generally ATM equipment  
18    that's deployed right now in packet-switched  
19    networks -- strike that.

20                 You are aware, are you not, that there  
21    are packet-switched networks deployed right now by  
22    a number of different kinds of companies?

1           A.     I'm not sure I understand your question.

2           Q.     I mean not just SBC or Ameritech  
3     Illinois, but there are ATM networks deployed right  
4     now by data providers or other telecommunications  
5     carriers. Isn't that right?

6           A.     I've heard of some.

7           Q.     Okay. Isn't it correct that ATM  
8     equipment that's deployed is suppose to be able to  
9     support all of the ATM Forum quality of service  
10    classes that you're describing here?

11          A.     I'm not sure if that is a requirement  
12    for all of it or not.

13          Q.     Well, let's take what you call the OCDs  
14    for example. Isn't it correct that the Lucent CBX  
15    500 supports all five ATM Forum quality of service  
16    classes?

17          A.     It supports CBR, VBR real time and near  
18    real time, and the UBR.

19          Q.     But you just don't know if it supports  
20    Available Bit Rate or not?

21          A.     I don't know if it supports Available.

22          Q.     Is the same support available for the

1 Cisco switch you mentioned that you're deploying in  
2 Illinois as the OCD?

3 A. I do not believe that the Cisco switch  
4 supports CBR at this time.

5 Q. Do you know that for a fact or is that  
6 what you've heard from someone?

7 A. That's what I've heard.

8 Q. And you think it doesn't support  
9 Constant Bit Rate. Right?

10 A. That's what I've been -- that's what  
11 I've heard, yes.

12 Q. Okay. Do you think that it supports the  
13 other four ATM Forum quality of service classes?

14 A. I know it supports the UBR.

15 Q. That's easy, right?

16 A. That's easy. I'm not sure about the VBR  
17 real time or near real time.

18 Q. Okay. Now this same ATM equipment --  
19 well, let me ask you something you might know more  
20 about. The interoffice facilities that you're  
21 talking about switching over from circuit-switched  
22 tandem switching basis to ATM, that is, you know,

1     from the central office to the world on your  
2     network, is the equipment you're going to install  
3     there, will that support all five ATM Forum quality  
4     of service classes?

5           A.     Have we shifted here? It sounds like  
6     we've shifted.

7           Q.     You're very perceptive. We have.

8           A.     Yeah.

9           Q.     Since you're the manager of ATM/VTOA, I  
10    wanted to ask you about what the plans were for ATM  
11    quality of service class support for the  
12    interoffice network that you're more familiar with.

13          A.     Oh. We will certainly be asking for  
14    those classes, these quality of services to be  
15    supported in the VTOA architecture.

16          Q.     All five of those.

17          A.     At least these four.

18          Q.     All right. Now is it also correct that  
19    there are -- in an ATM world, people speak of what  
20    are known as virtual circuits as opposed to  
21    physical circuits?

22          A.     That's correct.

1           Q.     What is happening here, if I understand  
2     correctly, is that you have a signal broken down  
3     into a bunch of packets, and the packets get routed  
4     to the destination, but they can go a variety of  
5     different ways, and once they're at the destination  
6     they're reassembled in the right order by the  
7     equipment there. Is that right?

8           A.     Are we just talking in general about an  
9     ATM network?

10          Q.     In general, a very high level.

11          A.     If we're talking a very high level about  
12     a general ATM network, that is typically the way it  
13     is. The signal is packetized and then transmitted  
14     to whatever its addressed destination is.

15          Q.     Okay. And every one of those packets --  
16     actually it's probably better to call them cells,  
17     isn't it?

18          A.     Yes.

19          Q.     Okay. Every one of those ATM cells has  
20     what's called a payload, which is the actual  
21     information, right?

22          A.     That's correct.

1           Q.     And it has a header. Right?

2           A.     Correct.

3           Q.     And the header includes routing  
4 information, meaning what number cell is this in  
5 the string of cells. Right?

6           A.     A lot of information is included in the  
7 header. That's correct.

8           Q.     But that's one bit of information.

9           A.     That's one piece of information in  
10 there.

11          Q.     And it also includes the ATM quality of  
12 service class, doesn't it?

13          A.     That is also included in there.

14          Q.     Okay. So every cell has that in the  
15 header.

16          A.     That's correct.

17          Q.     Okay. Now, one of the ways that SBC  
18 plans to provision Project Pronto using this  
19 technology is to create what everybody knows as  
20 PVCs, or permanent virtual circuits, over the  
21 fiber, right?

22          A.     Over the OC3c.

1 Q. Yes.

2 A. Yes. That would be virtual circuits.

3 Q. That is the fiber goes between the ATM  
4 switch or the OCD and the DLC equipment at the RT,  
5 right?

6 A. From the RT to the OCD would be virtual  
7 circuits. That's correct.

8 Q. Okay. And that's done with what we  
9 talked about as the element manager. Is that  
10 right?

11 A. The assignment of those and provisioning  
12 of those are done with the element manager.

13 Q. That's how you so call create those PVCs  
14 is with the element manager. Isn't that right?

15 A. That's correct.

16 Q. Okay. And the creation and maintenance  
17 of PVCs is a standard attribute or aspect of an ATM  
18 network. Isn't that right?

19 A. That's correct.

20 Q. And that's analogous to the -- if you  
21 think back to the all-copper world, that's  
22 analogous to the creation and maintenance of



1     separate physical paths from one point to another.

2     Right?

3           A.     Not quite.  If you think about the  
4     copper physical world, that is a hard-wired,  
5     end-to-end, always-know-what-it-is type of an  
6     arrangement.  With the creation of virtual  
7     circuits, it is whenever it gets to the pipe it is  
8     statistically multiplexed into the system.

9           Q.     I didn't say it was the same.  I said it  
10    was analogous to.  That is, you don't have physical  
11    circuits in an ATM world.  You have virtual  
12    circuits.

13          A.     I have virtual circuits in an ATM world.

14          Q.     Okay.  Then you also have something  
15    called permanent virtual paths.  Isn't that right?

16          A.     You could have.

17          Q.     Okay.  And could you compare for us a  
18    PVC, a permanent virtual circuit, to a PVP, a  
19    permanent virtual path?

20          A.     Yes, a permanent virtual path is a  
21    dedicated chunk of bandwidth on a dedicated pipe in  
22    the ATM network, and that is always available to

1 the user.

2 Q. Okay, and isn't it correct that it is  
3 commonplace for ATM networks to have PVPs created  
4 within which then individual PVCs are created and  
5 maintained?

6 A. It depends on the service provider and  
7 the type of services provided.

8 Q. Okay, but given that caveat, isn't that  
9 a correct statement?

10 A. Again, depending on the service that's  
11 being provided and the service provider, it could  
12 be one means of provisioning.

13 Q. Okay. Now are you offering -- I want to  
14 try and stay away as much as we can from the  
15 wholesale service verses UNE distinction and just  
16 stay to the technology, but if you need to talk  
17 about the service, you can obviously. Are you  
18 offering Rhythms both PVCs and PVPs on the Pronto  
19 architecture?

20 A. And I will have to talk about the  
21 Broadband Service.

22 Q. Okay.

1           A.     Because the Broadband Service  
2     established PVC circuits through the fiber from the  
3     NGDLC to the OCD and then its physical circuits  
4     from the Litespan system out to the customers on  
5     the copper.

6           Q.     Okay.  Is the equipment that you're  
7     deploying for Pronto capable of configuring PVPs?  
8     If you know.

9           A.     I don't know the answer to that.

10          Q.     I take it that, again, flipping back to  
11     your ATM/VTOA responsibilities, you're going to  
12     plan to get equipment that will allow you to  
13     configure both PVCs and PVPs between offices,  
14     right?

15          A.     And, again, we're talking about the VTOA  
16     architecture?

17          Q.     Yes, yes.

18          A.     I don't know that we've gotten that deep  
19     into it, Mr. Bowen.

20          Q.     Well, isn't -- if you think about an  
21     actual packet-switched network that consists of  
22     fiber connecting a bunch of packet switches, isn't

1     it the rule instead of the exception that those  
2     facilities will support both PVCs and PVPs?

3           A.     That's correct.

4           Q.     Okay. Okay. Let's talk about the  
5     flavors now. You testified that you've chosen to  
6     deploy PVCs in a UBR, Unspecified Bit Rate, quality  
7     of service class, and that that is -- you think  
8     aligns itself well with Internet access. Right?

9           A.     Where are you reading in my testimony?

10          Q.     I'm not reading from anyplace.

11          A.     Okay. We are deploying UBR.

12          Q.     And do you believe that that is the  
13     quality of service class that best aligns with  
14     Internet access?

15          A.     Yes, I do.

16          Q.     Okay. And can you tell us why that is?  
17     Why does UBR align well with -- align best, if you  
18     will, with Internet access?

19          A.     Number one, it allows the more efficient  
20     use of the shared facility between the RT and the  
21     OCD. Typically the consumer market, which is what  
22     Project Pronto is built for, is interested more in

1 the downstream speed. When I type something in,  
2 how fast does my screen type print or paints when  
3 the data comes back? UBR allows a very, very  
4 efficient use of the bandwidth in the Litespan  
5 system. I can assign more customers over that  
6 shared facility than I could under the other  
7 quality of services.

8 Q. Okay. And is it also true that the net  
9 basically runs as it runs, and if it's slow, it's  
10 slow, and if it's fast, it's fast, so you get what  
11 you get?

12 A. UBR by definition is best effort.

13 Q. Yeah. Okay. So what is CBR useful for,  
14 Constant Bit Rate?

15 A. What is it useful for?

16 Q. Yeah. What kind of service can you  
17 think of that that would align better than UBR for?

18 A. Voice over DSL is one of those services.

19 Q. Okay, and I take it you would agree you  
20 would not want to use UBR for voice over DSL.

21 A. That's correct.

22 Q. And why would that be the case?

1           A.     Well, if you think about voice  
2     transmission, you want to hear. When I say hello,  
3     Mr. Bowen, you want to hear hello, Mr. Bowen,  
4     without delay, and UBR service might introduce some  
5     delay in that, that message reaching you.

6           Q.     Okay. And when you say voice over DSL,  
7     I take it you don't mean necessarily -- you don't  
8     mean line sharing in the sense that you have -- if  
9     you think about the signal coming out of the  
10    customer premises, you don't have a lower frequency  
11    analog signal providing POTS service and a higher  
12    frequency signal providing data service. That's  
13    line sharing from the customer premises standpoint.  
14    You mean derived channels on the data portion when  
15    you say voice over DSL. Right?

16          A.     That is the definition, right, that I'm  
17    using.

18          Q.     In other words, you're going to take  
19    that DSL bandwidth and, in effect, derive one or  
20    more 64 kilobit voice channels out of that bit  
21    stream, right?

22          A.     Or whatever is necessary to get a good

1 voice quality within that DSL signal, yes.

2 Q. Meaning it could be less than 64 K worth  
3 of bandwidth?

4 A. It could be.

5 Q. Okay. But you need CBR for that.

6 A. That is the best class of service right  
7 now for that.

8 Q. Okay. Now what does VBR align itself  
9 best for, whether it's real time or near real time?

10 A. Some slow stream video or video.

11 Q. Okay. And you wouldn't want to -- why  
12 wouldn't you want to use CBR for video?

13 A. I don't know that you can't use CBR for  
14 video.

15 Q. Do you think it would be a waste of  
16 bandwidth to do that?

17 A. In most cases it is.

18 Q. Okay. And why wouldn't you want to use  
19 UBR for video?

20 A. For the same reason in voice  
21 transmission and the picture. You want to see the  
22 entire picture.

1           Q.     In fact, for video transmissions isn't  
2     there more information being passed than with  
3     voice?

4           A.     That's true.  However, in a UBR  
5     situation you can use certain slow scan or slow  
6     type video that if you're using a conference call,  
7     for instance, that there isn't a lot of motion, or  
8     I think a broadcast quality video, if you're not  
9     using that quality, you could use UBR.

10          Q.     Okay.  In fact, isn't it correct that  
11     the ATM Forum has developed these different quality  
12     of service classes because there are different  
13     kinds of applications that need to be supported?

14          A.     That's correct.

15          Q.     All right.  Do you know what Available  
16     Bit Rate is best suited for?

17          A.     I've only read one or two paragraphs on  
18     that, so I'm not familiar with it enough.

19          Q.     Okay.  Well, isn't it correct that SBC  
20     is already in lab tests with voice-over-DSL  
21     equipment?

22          A.     I'm not familiar with what's going on in



1 the voice-over-DSL world.

2 Q. Have you tried to inquire about the  
3 status of SBC's or its labs' efforts on that front?

4 A. Not recently.

5 Q. Have you ever inquired about that?

6 A. I just asked if we were doing it, if  
7 we're going to do it, offer it as a product.

8 Q. And what was the answer?

9 A. The strategic marketing organization is  
10 looking at it.

11 Q. Did you ask -- you've heard of TRI, have  
12 you not?

13 A. Yes.

14 Q. What does that stand for?

15 A. Technologies Resource Incorporated.

16 Q. And is that the -- is that a company  
17 owned by SBC, the parent?

18 A. It's an affiliate of SBC.

19 Q. Is that, in effect, the labs for all the  
20 SBC family?

21 A. Yes, it is.

22 Q. Okay. So the TRI folks are the ones

1     that test new technologies and, if they work,  
2     approve them for deployment. Right?

3           A.     That's correct.

4           Q.     Do you know whether or not voice over  
5     DSL equipment is in the labs right now for test s?

6           A.     I don't know.

7           Q.     Okay. Then you have a bunch of  
8     testimony here about all the different things that  
9     can be exhausted if you use those other quality of  
10    service classes besides UBR. Do you see that  
11    testimony starting at page 14? You say, "With CBR  
12    and VBR QoS, the facility carrying the DSL signal  
13    can exhaust the bandwidth capacity of the OC3c  
14    before the ports exhaust." That's at lines 15  
15    through 17 on page 14.

16          A.     Yes, I see that.

17          Q.     You're talking there about the fiber  
18    that goes back -- or the OC3c riding the fiber that  
19    goes back to the office.

20          A.     From the NGDLC and the OCD, that's  
21    correct.

22          Q.     Now I thought the whole idea of fiber -

1     based systems was that they were good for a number  
2     of reasons, one of which was it was fairly  
3     straightforward to increase the capacity, the  
4     throughput of a fiber-based system, without  
5     deploying completely redundant facilities between  
6     two ports. In other words, you can bump the  
7     electronics driving the fiber systems and get more  
8     bandwidth by doing so without having to deploy more  
9     fiber. Isn't that generally right?

10         A.     In some of the interoffice facilities,  
11     pure SONET-based facilities, that is a fair  
12     assumption.

13         Q.     Well, can't you do the same thing with  
14     the fiber between the RTs and the central offices  
15     in the Pronto architecture?

16         A.     No, sir.

17         Q.     You can't deploy wave division  
18     multiplexing, for example. That's impossible. Is  
19     that your testimony?

20         A.     No. You asked me if I could bump the  
21     equipment, the electronics, and I can't bump the  
22     electronics in the Alcatel system to do that. I

1     could deploy wave division multiplexing, but that  
2     still does not increase the OC3 capacity for the  
3     data channel banks.

4           Q.     Okay. What you're saying is that the  
5     output of the data channel banks is an OC3c right  
6     now, and that's the maximum.

7           A.     That's it.

8           Q.     Okay. But you can -- or you could use  
9     wave division multiplexing, if you were concerned  
10    about using too many fibers, you could use wave  
11    division multiplexing and a fiber out of each of  
12    the channel banks to ride, in effect, one fiber  
13    system back to the office, right?

14          A.     I could use wave division multiplexing  
15    if I did not have enough fiber to get another OC3c.

16          Q.     And if you had enough fiber that was  
17    available, you might choose to use additional fiber  
18    instead of investing in WDM equipment, right?

19          A.     Could you repeat the question?

20          Q.     Yes. Let me ask the question this way.  
21    Isn't it correct that depending on the facilities  
22    that are available, there are a number of ways to

1     increase the capacity of the systems, the fiber  
2     systems that support Project Pronto, and that they  
3     include using additional fibers, deploying wave  
4     division multiplexing, deploying Litespan 2012s  
5     instead of 2000?

6           A.     That will only get you more fibers. You  
7     still have the problem that the bandwidth is only  
8     155 megahertz for each channel bank, so you can  
9     still exhaust the capacity of the channel bank.

10          Q.     I'm not trying to suggest to you via my  
11     questions that there is no limit to the capacity of  
12     a fiber system. I'm simply asking you to agree  
13     with me that it's possible to increase the capacity  
14     by the means I mentioned above a single OC3c.  
15     Isn't that right?

16          A.     I can add an additional OC3c by using  
17     WDM technology.

18          Q.     All right. Or you can have up to three  
19     OC3cs with currently supported vendor technology  
20     using three separate two-fiber systems out of the  
21     back of those channel banks if you have the fiber,  
22     right?

1           A.     If the fiber is available.

2           Q.     Okay.

3                   Now you also talk about how if you do  
4 what you call unchaining the OC3c from the channel  
5 banks, you'll need more fibers, and then you talk  
6 about needing more OCDs. That's at page 17. Do  
7 you see that?

8           A.     Yes.

9           Q.     Okay. You actually have seen one of  
10 these boxes installed, isn't that right, one of  
11 these OCDs?

12          A.     Yes, I have.

13          Q.     Have you seen the Lucent box installed?

14          A.     Yes, I have.

15          Q.     That fits in a standard, roughly 24 inch  
16 wide rack. Right?

17          A.     It's not quite standard.

18          Q.     Well, it's roughly a 2 foot wide rack.

19          A.     Roughly.

20          Q.     And it's about a half a rack tall.

21          Right?

22          A.     That's correct.

1           Q.     Okay.  So if you had to put another one  
2     in or two more or three more, you aren't asserting  
3     that there's some kind of space constraint or space  
4     exhaust problems with COs, are you?

5           A.     Yes, we are.  As you well know, we're  
6     fairly limited on space.  The Lucent boxes are  
7     significantly large, significantly large boxes, and  
8     there are limits as to how many you can actually  
9     put into the space and with the distance  
10    limitations you have to stay within.

11          Q.     They're large?  You say large?  Aren't  
12    they about 3 feet tall, about 2 feet wide, and  
13    about 3 feet deep?

14          A.     I guess they're about 3 feet deep.

15          Q.     Okay.

16          A.     Yeah.

17          Q.     And you're completely out of space in  
18    the COs for any more equipment of that size.  Is  
19    that what you're saying?

20          A.     I didn't say we're completely out of  
21    space.  I said we don't have just unlimited space  
22    to deploy these.

1           Q.     You're not aware of any central office  
2     in Illinois that is so space constrained that it  
3     couldn't fit in one or two more OCDs, are you?

4           A.     I'm not familiar with the central  
5     offices in Illinois and their space limitations.

6           Q.     Okay. Can you turn to attachment JEK -3?  
7     That's the Alcatel letter. Do you have that?

8           A.     I have that.

9           Q.     It looks from reading this as though you  
10    asked Alcatel for some answers. Right?

11          A.     That's correct.

12          Q.     What form did that request take? Was it  
13    in writing or was it orally or how did you convey  
14    that request to Alcatel?

15          A.     Orally.

16          Q.     And did you call Mr. Darrell,  
17    D-A-R-R-E-L-L, Mansur, M-A-N-S-U-R, from Alcatel?

18          A.     Yes, I did.

19          Q.     About when did that call occur?

20          A.     It was near the end of August.

21          Q.     Okay. Was it after this Commission's  
22    decision in this case?



1           A.     I believe it was.

2           Q.     And are these the three questions that  
3     you asked Mr. Mansur to answer?

4           A.     Yes, they are.

5           Q.     Okay. Now do you see number 2 on page 2  
6     of exhibit -- or I'm sorry -- Attachment JEK-3?  
7     The question is what other types of xDSL are  
8     supported by Litespan.

9           A.     Yes, I do.

10          Q.     Okay. And there's a variety of things  
11     listed here, including ISDN, BRI, which can be used  
12     to support IDSL. There's G.Lite DMT. There's two  
13     kinds of HDSL2, and there's something called  
14     G.sHDSL. Do you see those?

15          A.     Yes, I do.

16          Q.     Okay. What is G.sHDSL?

17          A.     It's an ATM form of HDSL service.

18          Q.     Okay. And can that be used in a line  
19     sharing configuration?

20          A.     No, it cannot.

21          Q.     Why is that?

22          A.     Because the spectrum used for the

1 G.SHDSL takes both the voice band as well as the  
2 entire bandwidth of the cable pair.

3 Q. Were you here yesterday for the  
4 cross-examination?

5 A. Yes, I was.

6 Q. Okay. Did you hear Mr. Binnig ask  
7 questions that went to the issue of the so-called  
8 superior network that might be created?

9 A. Yes, I did.

10 Q. Okay. I want you to tell us whether any  
11 of the things that are being suggested by Rhythms  
12 in this case, in your view, constitute requests for  
13 a so-called superior network as Mr. Binnig used  
14 that term.

15 MR. BINNIG: I object to it as being beyond  
16 the scope of his testimony, this witness's  
17 testimony.

18 MR. BOWEN: Well, I can ask either this  
19 witness or Mr. Lube, but one of them has to be able  
20 to answer this question.

21 MR. BINNIG: I don't think so.

22 MR. BOWEN: It's the topic of this case. If

1 he wants to defer to Mr. Lube, I will be happy to  
2 ask Mr. Lube those questions.

3 EXAMINER WOODS: Did either one of these  
4 witnesses -- I don't recall their testimony as  
5 testifying that they thought that the requests  
6 amounted to a request for a superior network.

7 MR. BOWEN: I didn't read it in their  
8 testimony per se, Your Honor, but that clearly is  
9 the point that Ameritech is seeking to raise in  
10 this case, and so I think it's appropriate to ask  
11 their own witnesses whether they would characterize  
12 our requests, as the witnesses in this case, as  
13 superior network requests.

14 MR. BINNIG: Your Honor, Mr. Lube I think may  
15 make a reference to that in his testimony, so if  
16 the question is going to be asked, I believe he's  
17 the appropriate witness.

18 MR. BOWEN: Okay. We'll put a pink sticker on  
19 that.

20 EXAMINER WOODS: You dodged the bullet,  
21 Mr. Keown.

22 (Laughter)

1 MR. BOWEN: Okay.

2 Q. And then come back with me, please, to  
3 page 6 of Exhibit 7.1. I just want to clarify  
4 about what's on the card, and the card I'm talking  
5 about here is the ADLU card we've been discussing.  
6 Am I right that the -- a splitter is a passive  
7 device. Correct?

8 A. Correct.

9 Q. Okay. Isn't it correct that the  
10 splitter functionality -- forget the DSLAM for a  
11 second. The splitter functionality is on the ADLU  
12 card.

13 A. That's correct.

14 Q. And there's no part of the DLC equipment  
15 that has anything to do with splitting.

16 A. The splitter functionality is totally  
17 contained on the ADLU.

18 Q. Okay. Now am I also correct that the  
19 DSLAM functionality in your view is partly on the  
20 card and partly in the software for the DLC?

21 A. With the understanding that ADLU is only  
22 a subcomponent of the entire system.

1           Q.     Okay.  That's okay.  But when you say  
2     part of it is in the system software and part of it  
3     is on the card, I take it that you mean that you  
4     need the system software to drive the card, not  
5     that there's some kind of DSLAM functionality in  
6     the system software.  Is that fair?

7           A.     Well, I think it goes back to the  
8     question you asked me earlier this morning and that  
9     is that it took a certain version of software in  
10    the Alcatel Litespan to make ADSL capable.

11          Q.     Right.  What I'm saying --

12          A.     So, yes, part of that functionality  
13    resides in the software and part of it resides --

14          Q.     On the card.

15          A.     On the card.

16          Q.     Okay.  Now you can have a POTS card to  
17    plug in there right now too, right?

18          A.     Plug in?

19          Q.     To the NGDLC, to the Litespan 2000.

20          A.     That's correct.

21          Q.     That doesn't do any DSLAMing, right?

22          A.     That's correct.

1           Q.     And the system software doesn't do any  
2     portion of the DSLAM functionality when it talks to  
3     a POTS card.   Right?

4           A.     That's correct.

5           Q.     Okay.   So if I understand what you're  
6     saying, the DSLAM functionality, meaning the line  
7     coding and de-coding at the end of the copper, is  
8     on the card, but it's enabled by the system  
9     software in load of 10.1 and above.

10          A.     That's correct.

11          Q.     Okay.   Then back on page 7, you're  
12     responding to Mr. Clausen at lines 16 through 18,  
13     and you seem to be saying that -- and you say taken  
14     literally, unbundling the fiber means taking away a  
15     piece of Pronto.   You're not reading Mr. Clausen's  
16     testimony, are you, to suggest that unbundling in  
17     that sense means give us the fiber instead of you?

18          A.     That's why I used the words taken  
19     literally, that's what it would imply.

20          Q.     Do you think he's suggesting that in his  
21     testimony?   That the fiber be taken away from  
22     Ameritech and given to a CLEC as a UNE?

1           A.     Well, again, that's why I said taken  
2     literally. That's the way I read his testimony,  
3     just taken literally. That's what it would imply.

4           Q.     Okay. Well, if instead Mr. Clausen or  
5     Rhythms would be suggesting that we have access to  
6     UNEs as PVCs, that concern would be addressed.  
7     Isn't that right?

8           A.     Well, UNEs as PVCs in the context of the  
9     Pronto architecture, there's nothing you can do  
10    with that, just that PVC.

11          Q.     If we tell you we aren't asking for the  
12    physical fiber as a UNE but instead asking for call  
13    it what you want to, transport, PVCs, capacity on  
14    that fiber, using the ATM technology, you  
15    understand that to mean that we aren't asking for  
16    physical fiber for our exclusive use, do you not?

17          A.     After listening to Mr. Clausen's  
18    testimony yesterday, I understand what he means,  
19    what he meant in his written testimony.

20          Q.     And you understand Rhythms' request not  
21    to be for taking fiber away from Ameritech and  
22    using it exclusively for Rhythms' only use, don't

1     you?

2           A.     I understand that, again, in what  
3     Mr. Clausen has written, what he has recommended is  
4     that it be broken into components, yes.

5           Q.     But my question was about Rhythms'  
6     position. You understand Rhythms' position to be  
7     not to be that we're asking for your fiber to be  
8     taken away from you and given to our exclusive use.

9           A.     I assume that's what you're asking for.

10          Q.     Okay. All right.

11                 Now let's talk very briefly, and we'll  
12     talk I think more with Mr. Lube about this issue ,  
13     but turn with me, please, to page -- this is  
14     Exhibit 7.2, your surrebuttal testimony, on page 3  
15     and 4, the question at the bottom of 3 and the  
16     answer at the top of page 4. Here's all these  
17     GR-303, TR-008, TR-057 references. Do you see  
18     those?

19          A.     Yes, I do.

20          Q.     Those are switch interface  
21     specifications, are they not?

22          A.     That's correct.



1           Q.     Am I correct that Mr. Riolo is correct  
2     when he says that if an NGDLC uses this GR-303  
3     interface, that, in fact, regular calls can be  
4     assigned on a per-call basis to time slots? That's  
5     part of the functionality of GR-303?

6           A.     GR-303 is assigned to a specific time  
7     slot and nailed up until the call terminates.

8           Q.     But then it's released for use by  
9     somebody else, right?

10          A.     That's correct.

11          Q.     Okay.

12          A.     But during that period while it is up, I  
13     can literally take a test set, get on that time  
14     slot, and find that voice call.

15          Q.     So it's nailed up in the sense of being  
16     dedicated to that caller during the course of that  
17     one call, and then it's released. Right?

18          A.     That's correct.

19          Q.     Okay. Am I correct that the NGDLC  
20     equipment being deployed as part of Project Pronto  
21     can be configured for any two of those switch  
22     interfaces? That is, you can do GR-303 plus TR-008

1 or you can do GR-303 plus TR-057?

2 A. You're talking about in combinations?

3 Q. Yes. You can use any of the two of the  
4 three you choose.

5 A. In combinations, yes, you can.

6 Q. Okay. And is TR-008 -- please associate  
7 those three interfaces with these three terms:  
8 Universal DLC, Integrated DLC, and NGDLC, if you  
9 can.

10 A. Integrated DLC can be either GR-303 or  
11 TR-008. Universal DLC is TR-057.

12 Q. Okay. And am I correct that the first  
13 specification of the three was TR-057 in time?

14 A. In time.

15 Q. And then came TR-008?

16 A. That's correct.

17 Q. And it was developed to support the  
18 Integrated DLC being deployed at the time. Is that  
19 right?

20 A. That's correct.

21 Q. And then GR-303 was developed to support  
22 NGDLC?

1           A.     Or time switching in the RTs, yes.

2           Q.     Okay. The final question or final area  
3     is on the last page of your surrebuttal testimony,  
4     actually the question that happens on page 10.  
5     You're addressing Mr. Riolo's discussion of  
6     electromagnetic interference, commonly called  
7     cross-talk, that might be present in Project  
8     Pronto configurations. Do you see that?

9           A.     Yes, I do.

10          Q.     And you say that there are no facts to  
11     date that support his claim. Do you see that  
12     testimony?

13          A.     Yes, I do.

14          Q.     Isn't it, in fact, true that the T1E1  
15     committee is addressing this because there are  
16     concerns about cross-talk induced by the field  
17     placement of DSL transceivers?

18          A.     Yes, that's prompted them to look at it.

19          Q.     Okay. Isn't it a fact that under the  
20     Project Pronto configuration that is being deployed  
21     in Illinois, the Project Pronto fed loops will use  
22     the same distribution cables as the home-run copper

1 loops?

2 A. That's true.

3 Q. So you're bringing new copper feeder  
4 cable from the RT to the cross box or the serving  
5 area interface, right?

6 A. True.

7 Q. And those will also still be fed by  
8 existing copper facilities, or they could be.  
9 Right?

10 A. Where they're capable.

11 Q. Okay. But you're not adding new  
12 distribution plant.

13 A. That's correct.

14 Q. So are you going to -- if you have a  
15 current data services that's served over home-run  
16 copper and you deploy Pronto, the same distribution  
17 cable that serves that current customer on home-run  
18 copper will be used to serve that customer's  
19 neighbor with Pronto. Right?

20 A. That's correct.

21 MR. BOWEN: Okay. That's all I have. Thank  
22 you.

1           A.     The problem with that though, with that  
2     assumption though, is that everything lies  
3     together, and for the electromagnetic induction to  
4     take place they have to be in proximity with each  
5     other, and if that doesn't exist, then you don't  
6     have the problem.

7           Q.     Well, what's the standard size for  
8     distribution cable? Isn't it 25 pair?

9           A.     It depends on the lateral that you're  
10    running from.

11          Q.     Isn't that a common size for  
12    distribution cable?

13          A.     That's one size, yes.

14          Q.     And also it can be 50 or 100. Is that  
15    right?

16          A.     It could be 50 or 100.

17          Q.     So wouldn't you say that if you're  
18    looking at 25 pair of cable to two people next door  
19    to each other, and you had a Pronto service and a  
20    home-run copper-based DSL service, that those pairs  
21    would be in proximity to each other?

22          A.     They would be in the same binder group.

1           Q.     And isn't that one of the tests that SBC  
2     has suggested itself for looking for cross-talk  
3     problems when services are in the same binder  
4     group?

5           A.     That's one of the things T1E1 is looking  
6     at.

7           Q.     Isn't that what SBC itself has suggested  
8     could be a problem?

9           A.     I don't know where that was suggested.

10          MR. BOWEN:   Okay.   That's all I have.

11                    Thank you, Your Honor.

12          EXAMINER WOODS:   Okay.   Let's do lunch.

13                               (Whereupon lunch recess was  
14                               taken until 1:00 P.M.)

15

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1                   A F T E R N O O N   S E S S I O N

2                   EXAMINER WOODS: Back on the record.

3                   CROSS EXAMINATION

4                   BY MS. FRANCO-FEINBERG:

5                   Q. Good afternoon, Mr. Keown, is that  
6 correct?

7                   A. That's correct.

8                   Q. My name is Felicia Franco-Feinberg. I am  
9 here representing Covad Communications. How are you  
10 this afternoon?

11                  A. Just fine.

12                  Q. I just have a few questions for you. I  
13 know that that's a popular starting point and very  
14 rarely the case, but I will do my best.

15                  The purpose of Project Pronto is to bring  
16 DSL capable facilities to residential customers who  
17 SBC or Ameritech would not be able to serve with their  
18 existing facilities; is that true?

19                  A. Generally, that's true.

20                  Q. Currently, absent a Project Pronto  
21 deployment, is it true that Ameritech has no fiber-fed  
22 DLC facilities that can support ADSL?

1           A. Without Project Pronto there are no DLC  
2 facilities that I am aware of that support that.

3           Q. And Project Pronto has not yet been  
4 deployed in Illinois; is that correct?

5           A. That's correct. It is still in progress.

6           Q. And after deployment of Project Pronto in  
7 Illinois, there will be fiber-fed DLCs that can  
8 support ADSL; is that correct?

9           A. There will be fiber-fed facilities that  
10 will be able to transport the DSL signal.

11          Q. And that would be considered ADSL  
12 capable?

13          A. ADSL capable.

14          Q. Fiber-fed DLC then?

15          A. That is correct.

16          Q. Is the Litespan 2000, the Alcatel 2000, a  
17 fiber-fed DLC system?

18          A. It is.

19          Q. And is the Litespan 2000 ADSL capable?

20          A. Only if it has the correct software  
21 version and the common hardware to support it.

22          Q. But it is capable of supporting ADSL as



1       it will be deployed by SBC's Project Pronto?

2               A. As it is upgraded in the deployment of  
3       Project Pronto, it would be capable of supporting DSL.

4               Q. Is the Alcatel Litespan 2012 a fiber-fed  
5       DLC system?

6               A. It is.

7               Q. And is the Litespan 2012 as it will be  
8       deployed by SBC in Project Pronto ADSL capable?

9               A. It will have the software and hardware  
10      capable of carrying the DSL signal.

11              Q. And is the UMC 1000 system a fiber-fed  
12      DLC system?

13              A. The UMC 1000 today, it can be either a  
14      fiber-fed or it can be over just regular SONET blocks,  
15      yes.

16              Q. And is the UMC 1000 that SBC will be  
17      deploying in Illinois a fiber-fed system?

18              A. It will be.

19              Q. And is the UMC 1000 system as it would be  
20      deployed by SBC as part of Project Pronto in Illinois  
21      ADSL capable?

22              A. It will be capable of carrying the DSL

1 signal.

2 Q. Okay. So the answer to my question is  
3 yes, it is capable of carrying ADSL?

4 A. It will be capable of carrying a DSL  
5 signal.

6 Q. Once SBC's deployment of Project Pronto  
7 is completed in Illinois, how will that impact the  
8 percentage of loops in Ameritech's network that are  
9 served by copper loops versus fiber-fed DLC loops that  
10 are capable of supporting ADSL?

11 A. How would it effect the copper percent?  
12 I'm sorry, would you clarify the question?

13 Q. Sure. Let me refer to a data request.  
14 Are you familiar with Covad's Data Request Number 12  
15 that Ameritech provided responses to yesterday?

16 MR. BINNIG: Why don't you show it to him?

17 MS. FRANCO-FEINBERG: Can I approach the  
18 witness?

19 MR. BINNIG: Sure.

20 Q. Mr. Keown, why don't you take a look at  
21 that data request? The data request, for the record,  
22 asks Ameritech to identify the overall percentage of

1 loops in Ameritech or Ameritech's parent's current  
2 network that are provisioned on four different types  
3 of loops, the first being all copper loop facilities  
4 without pair gain devices of any type, the second is  
5 all copper loop facilities with pair gain devices, the  
6 third is fiber-fed DLC facilities that do not support  
7 DSL, and the fourth is fiber-fed DSL facilities that  
8 do or will support ADSL. Do you see that part of the  
9 question?

10 A. I do.

11 Q. And the responses provide percentages as  
12 of November 1 of 2000. It indicates that 86 percent  
13 of the loops in Ameritech's current network are  
14 provisioned on all copper loop facilities; 1.9 percent  
15 of all copper loop facilities with pair gain devices  
16 are provisioned -- I'm sorry, 1.9 percent of loops are  
17 of all copper loop facilities with pair gain devices;  
18 12.1 percent of Ameritech's loops are fiber-fed DLC  
19 facilities that do not support ADSL; and zero percent  
20 of the loops are on fiber-fed DLC facilities that do  
21 or will support ADSL; do you see that?

22 A. I do.

1           Q. And you indicated earlier that the reason  
2           that that's zero percent is because Project Pronto has  
3           not yet been deployed by Ameritech in Illinois; is  
4           that correct?

5           A. I don't know that that answered the  
6           question about the zero percentage on this.

7           Q. Well, you indicated there are no  
8           fiber-fed DLC facilities in Illinois until -- because  
9           Project Pronto has not yet been deployed?

10          A. That is correct.

11          Q. After Project Pronto deployment is  
12          completed, how will these percentages in Data Request  
13          Number 12 change?

14          A. I don't have any data to answer that  
15          question with.

16          Q. Okay. But they won't stay the same, will  
17          they?

18          A. I don't know. I don't think they would  
19          change.

20          Q. So even after Ameritech deploys fiber-fed  
21          DLC facilities that are capable of supporting ADSL, is  
22          it your position that it will be zero percent of loops

1       that are served on fiber-fed DLC facilities that do or  
2       will support ADSL?

3               A.   That is correct.

4               Q.   So Project Pronto will not increase the  
5       number of loops in Illinois that are served by  
6       fiber-fed DLC facilities that will support ADSL?

7               A.   That's correct.

8               Q.   Okay. Let me make sure I understood what  
9       you said. You indicated that the Litespan 2000 system  
10      is a fiber-fed DLC system; correct?

11              A.   It is.

12              Q.   And that system is capable or will  
13      support ADSL; is that correct?

14              A.   It can carry the DSL signal.

15              Q.   And that Litespan 2000 system will be  
16      deployed by Ameritech in Illinois as part of Project  
17      Pronto; is that correct?

18              A.   Yes.

19              Q.   And that will not actually increase the  
20      number of loops in the network served by fiber-fed DLC  
21      facilities that will support ADSL; is that your  
22      position?

1           A. That's my position.

2           Q. Is it your position then that there are  
3 no loops that will be provisioned on the Litespan 2000  
4 after Project Pronto's deployment?

5           A. Regular voice grade UNE loops will be  
6 provisioned after deployment of Project Pronto.

7           Q. I don't believe that I defined loops to  
8 only be -- I mean, I didn't define loops to include or  
9 exclude other --

10          A. I'm sorry, I misunderstood your question  
11 then. What were you asking?

12          Q. Okay. Is it your position that DSL  
13 capable loops are not loops?

14          MR. BINNIG: That's an interesting, I  
15 guess --

16          MS. FRANCO-FEINBERG: I am just trying to  
17 understand the basis for him to say that there is  
18 no -- there will be no increase in the percent of  
19 loops capable of supporting ADSL through fiber-fed DLC  
20 facilities that will support ADSL following Project  
21 Pronto. That's his position.

22          EXAMINER WOODS: Let's ask him that.

1           A. The question that I am looking at is,  
2       would there be any loops, and I am saying no. This  
3       percentage will stay the same.

4           Q. Why is that?

5           A. Because a loop in the definition that I  
6       have for a loop is a facility that goes from the main  
7       distributing frame to a customer's NID and that's not  
8       the case with the project service or with the Project  
9       Pronto architecture.

10          Q. What percentage of copper subloops in  
11       Ameritech's current network will be provisioned on  
12       fiber-fed DLC facilities that will support ADSL  
13       following Project Pronto's deployment?

14          A. That question doesn't have any merit.  
15       I'm not sure -- copper subloops are not fiber.

16          Q. Okay. If I understand correctly, Project  
17       Pronto has a fiber component, is that correct, to the  
18       remote terminal; is that correct?

19          A. From the OCD to the remote terminal.

20          Q. And then there is a copper portion from  
21       the remote terminal to the end user premises; is that  
22       correct?

1           A. That makes up the copper facility, the  
2 copper subloop facility, along with the PVC from the  
3 Project Pronto architecture makes up the broadband  
4 service.

5           Q. Okay. I am asking you to -- my question  
6 is not related to whether it's a service or a UNE.

7           A. I am not trying to be unfair.

8           Q. And my question is, you reference that  
9 copper facility that will be served by a fiber-fed DLC  
10 in your response; isn't that correct? In Project  
11 Pronto, there is a copper facility; isn't that  
12 correct?

13          A. There will be a copper component with the  
14 project service, yes.

15          Q. Which is connected to the remote  
16 terminal?

17          A. That's correct.

18          Q. And what percentage of loops will -- what  
19 percentage of those copper subloops will be connected  
20 to a remote terminal that will be connected to fiber  
21 connected to the OCD after the Project Pronto  
22 deployment? Will it be greater than zero which is



1       your current network configuration?

2               MR. BINNIG: Well, I guess I will object to  
3       that question because, if you are talking about the  
4       current network configuration of subloops, that's not  
5       what the data request is asking about.

6               Q. Okay. And I am just asking a question in  
7       cross. Is it greater than zero?

8               A. If we are talking strictly subloops, I  
9       don't know the exact number.

10              Q. But would you agree that it's greater  
11       than zero?

12              A. Subloops, copper subloops, yes, I would  
13       agree that the copper subloop is greater than zero.

14              Q. And would it increase -- do you think it  
15       will increase the number of copper subloops that are  
16       capable of supporting ADSL?

17              A. I don't think it would increase it.

18              Q. Over the -- you don't think it will  
19       increase the number of copper subloops?

20              A. No, I don't.

21              Q. Capable of supporting ADSL versus the  
22       number today?

1           A. No, I don't. You understand -- and maybe  
2 I am missing your question. But if you look at the  
3 definition of a subloop, at least as I understand the  
4 FCC defined it, as an accessible copper point, an  
5 accessible point by a technician, etcetera, for the  
6 copper. And we are going to continue to use the  
7 copper distribution plant that is out there today to  
8 provide the DSL. So that part is not changing. So it  
9 stays the same.

10           Q. I think we started with the premise that  
11 some of the copper loop in Ameritech's current  
12 existing network today is not capable of supporting  
13 ADSL; is that correct?

14           A. Some copper loops?

15           Q. Yes.

16           A. If they are too long, they won't support  
17 ADSL.

18           Q. Which is the entire or very large reason  
19 why SBC is investing \$6 billion in Project Pronto so  
20 that ADSL -- so that more consumers are capable of  
21 receiving ADSL services than can currently be served  
22 on Ameritech's existing copper network; is that

1 correct?

2 A. It is not only just the copper network.  
3 It is the facility that serves only end use customers.

4 Q. So underlying that assumption is that the  
5 percentage of loops that will be ADSL capable will  
6 increase following Project Pronto, isn't that true,  
7 following Project Pronto deployment?

8 A. Okay. Are we talking subloops or are we  
9 talking overall loops?

10 Q. The facilities available to -- is it true  
11 that 40 percent more consumers will be able to obtain  
12 ADSL services as a result of Project Pronto?

13 A. I'm not sure what the exact percentage  
14 is, but some increase will occur.

15 Q. I mean, could you approximate the  
16 increase that you -- that SBC anticipates or foresees?

17 A. I don't know that number.

18 Q. Would you say it's greater than ten  
19 percent?

20 A. I'm sorry, I don't know the number.

21 MS. FRANCO-FEINBERG: Covad would like to  
22 ask an on-the-record data request to receive that

1 information.

2 MR. BINNIG: And the request is for the  
3 percentage of customers who currently cannot receive  
4 ADSL service today, that will be able to receive ADSL  
5 service once Pronto is deployed?

6 MS. FRANCO-FEINBERG: Yes.

7 MR. BINNIG: Is the question. We can get  
8 that information and we will provide it in response.

9 MS. FRANCO-FEINBERG: Thank you.

10 Q. Mr. Keown, is it true that 80 percent of  
11 all customers can -- will be able to get DSL service  
12 after Project Pronto's deployment?

13 A. I think our announcement said that we  
14 will make it available to 80 percent of the customer  
15 base in our 13 states.

16 Q. And do you know what percentage currently  
17 are able to get DSL service today prior to deployment  
18 of Project Pronto?

19 A. No, I don't.

20 Q. I would like to turn your attention to  
21 your attachment to your direct testimony, Exhibit 7.0,  
22 Attachment JEK-2.

1           A.   Okay.

2           Q.   And that's entitled "CLEC Line Card  
3   Ownership - Worst Case RT Data Utilization"?

4           A.   Correct.

5           Q.   Is it your position that the Commission  
6   should examine the worst case scenario in deciding  
7   what is required under the law?

8           A.   Could you clarify that just a little bit  
9   more?

10          A.   Well, is it your position that the  
11   Commission is to examine the worst case scenario in  
12   determining what Covad or Rhythms are entitled to as a  
13   result of this arbitration?

14          A.   I think the Commission needs to have a  
15   full record to be able to look at the best case and  
16   the worst case scenario but definitely the worst case  
17   is a --

18          Q.   Have you provided the best case scenario  
19   for the Commission then?

20          A.   In the best case we won, and that's  
21   pretty easy. The Commission ought to be able to look  
22   at the worst case scenario to see what the impact

1 would be overall.

2 Q. And have you provided the Commission with  
3 any information as to how likely the worst case  
4 scenario is?

5 A. No, I have not.

6 Q. Have you done any analysis to determine  
7 the likelihood of this scenario?

8 A. I haven't done any probability studies.

9 Q. On page 7 of your direct, I believe  
10 relying on this attachment, you indicate that, unless  
11 CLECs use all the ports on each of their collocated  
12 line cards, which is an unlikely scenario, inefficient  
13 utilization would result on the Project Pronto  
14 network; is that correct?

15 A. Yes.

16 Q. Did you do any analysis to determine how  
17 unlikely a scenario it is that the CLECs would use all  
18 the ports on the line card?

19 A. Not any detailed analysis.

20 Q. Okay. And if I understood correctly your  
21 answers to some of Mr. Bowen's questions earlier  
22 today, each line card is currently capable of serving

1 two DSL end users; is that correct?

2 A. Apparently.

3 Q. And so in your opinion it's highly  
4 unlikely that Covad, for example, would be able to  
5 find two DSL end users in the Project Pronto world?

6 A. I don't know what Covad's chances would  
7 be of finding new customers.

8 Q. But you determined that's unlikely?

9 A. In many cases I would think so.

10 Q. But you didn't consider whether it's  
11 likely or unlikely that Covad would find two  
12 customers?

13 A. In the same serving area, same identical  
14 pairs that would be going to the same identical  
15 serving area UNE bases, I don't know what those  
16 probabilities would be but I would think it would be  
17 unlikely because they serve such small areas.

18 Q. But, again, you didn't do any studies or  
19 analysis or anything to back up your conclusion?

20 A. No, I did not.

21 Q. And I just want to ask a few follow-up  
22 questions to the ten step provisioning process that

1       you detail on page 9 and 10 of your direct testimony,  
2       Exhibit 7.0. You start by indicating that  
3       provisioning of DSL service would be adversely  
4       affected if CLECs own or designate or are able to  
5       collocate their own line card; is that correct?

6               A. Correct.

7               Q. Is it your position that the ten steps  
8       would only occur if CLECs were permitted to own and  
9       collocate their own NGDLC line cards?

10              A. These are hollow steps, and not just the  
11       NGDLC card but the ADL card specifically.

12              Q. Okay. So some of these steps, or many of  
13       these steps, would occur even if Ameritech owned the  
14       line card; is that correct?

15              A. Well, if you start with the very first  
16       step that I identified in my testimony here, that step  
17       would not be involved in any of the steps. And if you  
18       go down through here, many of these steps would not be  
19       required if Ameritech owned the card.

20              Q. Okay. Any time a CLEC wants to provision  
21       service, whether Ameritech owns the card or a CLEC  
22       owns the card, the CLEC would need to first identify



1 the end user customer that it needs to serve, right,  
2 either way; is that correct?

3 A. The CLEC just identifies the loop that it  
4 needs to serve.

5 Q. So that has to happen whether Ameritech  
6 owns the card or the CLEC owns the card; correct?

7 A. Yes.

8 Q. Now, step number two, the CLEC would  
9 request loop qualification information to determine  
10 what facilities are available to serve that end user  
11 customer. Now, that, the CLEC again needs to do that  
12 step whether Ameritech owns the line card or the CLEC  
13 owns the line card; is that correct?

14 A. That is correct.

15 Q. For another example, step number six,  
16 Ameritech Illinois would then confirm -- oh, I'm  
17 sorry. Number seven, I apologize, Ameritech Illinois  
18 would then dispatch a technician to the remote  
19 terminal and install the line card to the CLEC. Am I  
20 correct that Ameritech Illinois would have to dispatch  
21 a technician to the remote terminal if it owned the  
22 line card?

1           A. No, you are not correct.

2           Q. Why not?

3           A. Because if Ameritech owned the card, the  
4 cost would be pre-provisioned and Ameritech would then  
5 only need to provision the service over that card.

6           Q. At some point a technician does need to  
7 go out to install the line card?

8           A. Only if capacity runs out.

9           Q. Okay. But, again, that is a step as part  
10 of the provisioning process for Ameritech Illinois?

11          A. It is not a normal provisioning step in  
12 the process.

13          Q. Can I ask, with respect to step number  
14 seven, if there was virtual collocation and the CLEC  
15 sold the card to Ameritech, would Ameritech need to  
16 dispatch a technician every time the CLEC wanted to  
17 provision service to an end user?

18          A. I think I testified earlier I am not a  
19 virtual collocation expert, even though I referred to  
20 it.

21          Q. I want you to assume that in virtual  
22 collocation the CLEC would sell the card and Ameritech

1 Illinois owns the card. Can you assume that? That  
2 that is the scenario for virtual collocation?

3 A. Yeah.

4 Q. Would Ameritech Illinois then have to  
5 dispatch a technician every time Covad or another CLEC  
6 decided to serve an end user from that remote  
7 terminal?

8 A. That would depend. What it would depend  
9 on is which -- what the location of you serving that  
10 customer out of and whether or not there is a card  
11 there that the CLEC owned. If it doesn't exist, then  
12 Ameritech would still have to dispatch some one to plug  
13 that card in.

14 Q. Okay. Now, step number eight, you  
15 detailed that Ameritech Illinois would have to confirm  
16 installation of the line card with the CLEC; is that  
17 correct?

18 A. That's correct.

19 Q. If Ameritech Illinois owned the line  
20 card, wouldn't Ameritech Illinois need to confirm with  
21 the CLEC that a line card was available?

22 A. Well, again, that follows step number

1       seven which says that we got the card, we plugged it  
2       in, and acknowledge it back to the CLEC that we had  
3       done those steps.

4               Q.   Okay.   So either way there has to be  
5       acknowledgment to the CLEC whether Ameritech Illinois  
6       owns the card or a CLEC owns the card?

7               A.   No.   If the CLEC owns the card, that step  
8       has to take place.

9               Q.   Okay.   I guess I am asking, there has to  
10      be a confirmation of the process either way; is that  
11      correct?

12              A.   No, if Ameritech owns the card, there is  
13      no confirmation needed.   Because the card being owned  
14      by Ameritech, the inventory is in the Ameritech  
15      systems, and when the service order came through, it  
16      would be provisioned automatically.

17              Q.   And would that be the case as well if  
18      there was virtual collocation where Ameritech owned  
19      the card?

20              A.   Again, I don't know with respect to  
21      virtual collocation, but if Ameritech owned the card,  
22      the steps I detailed earlier would be eliminated.

1           Q. So in virtual collocation, if Ameritech  
2 owned the card, this ten step provisioning process  
3 that you detailed would not be required; is that  
4 correct?

5           A. If Ameritech owned the card, these steps  
6 would be -- and this is the key -- if Ameritech owned  
7 the card, these steps, all these steps, would not be  
8 necessary.

9           Q. And in virtual collocation as Ameritech  
10 does it in Illinois, it does entail Ameritech owning  
11 the equipment that is being virtually collocated; is  
12 that your understanding?

13          MR. PABIAN: I thought he testified that he  
14 didn't know about it.

15          EXAMINER WOODS: I think that's generally  
16 been his testimony, that he doesn't know anything  
17 about collocation issues, but I guess --

18          Q. But you are confident that virtual  
19 collocation would not solve the problems that you are  
20 detailing here; is that correct?

21          A. Again, I don't know all the details of  
22 virtual collocation in Illinois so --

1           Q. But then it is correct that, even though  
2     you don't know the details of virtual collocation, you  
3     are confident that virtual collocation would not --  
4     that is your testimony here -- that virtual  
5     collocation would not eliminate any of these steps or  
6     solve any of these provisioning problems; is that  
7     correct?

8           A. Again, not knowing the details of  
9     Illinois' virtual collocation, if the CLEC still  
10    retains ownership of the card, then I say these steps  
11    are still applicable. If they are not owned by the  
12    CLEC, they are Ameritech-owned, many of them go away.

13          Q. If I can turn you to step number nine,  
14    the CLEC would then place a service order to establish  
15    service to the end user customer, is it true that this  
16    step would occur whether Ameritech owned the line card  
17    or the CLEC owned the line card?

18          A. Yes, but it would occur much earlier in  
19    the process if Ameritech owned the line card.

20          Q. Would you agree with me, in light of  
21    this, that many of these steps would be required to  
22    provision service in the Project Pronto network

1 architecture regardless of whether Ameritech owned the  
2 card or the CLEC owned the card?

3 A. Without counting how many would still be  
4 applicable whether Ameritech owned it or the CLEC  
5 owned it, there are some certainly that would still be  
6 applicable.

7 MS. FRANCO-FEINBERG: Covad has no further  
8 questions at this time.

9 EXAMINER WOODS: Mr. Bowen, anything else?  
10 Redirect?

11 MR. BINNIG: Can we have a minute?

12 EXAMINER WOODS: Sure.

13 (Whereupon the hearing was in  
14 a short recess.)

15 EXAMINER WOODS: Back on the record.

16 REDIRECT EXAMINATION

17 BY MR. BINNIG:

18 Q. Mr. Keown, you were asked a number of  
19 questions by Covad's counsel relating to your  
20 description of the provisioning process for the  
21 collocation of line cards on page 9 and 10 of your  
22 direct testimony. Do you have that in front of you?

1           A. Yes, I do.

2           Q. And just so the record's clear, what is  
3 your understanding of the provisioning steps that  
4 would be required? I know you said you are not an  
5 expert on virtual collocation in Illinois. I want you  
6 to assume for purposes of this first question that  
7 virtual collocation in Illinois, the CLEC still owns  
8 the line card or the facility in question. In this  
9 case we are talking about line cards. What would the  
10 provisioning steps be under that collocation scenario  
11 where the CLEC still owns the line card?

12          A. That would be as I outlined in my direct  
13 testimony in these steps.

14          Q. Let's take the other hypothetical which  
15 you were asked a number of questions about, which is  
16 the situation where, again, it's a hypothetical where  
17 under a virtual collocation arrangement it would be  
18 Ameritech Illinois that would own the line card, would  
19 have legal title to the line card on behalf of the  
20 CLEC, okay. In that situation how would the  
21 provisioning process differ from a situation where  
22 there were no virtual collocation at all and Ameritech



1 Illinois owned the line card?

2 A. There would be no difference in that the  
3 steps that would be required for inventory,  
4 maintaining, and all the other provisioning efforts  
5 that I listed in my direct testimony will be the same.

6 Q. You may not have heard my question. How  
7 would the steps, provisioning steps, differ between a  
8 situation where a hypothetical virtual collocation  
9 scenario where legal title to the line card is  
10 transferred to Ameritech Illinois on behalf of the  
11 CLEC, that compared to the provisioning process where  
12 there is no collocation, virtual or physical, and  
13 Ameritech Illinois is the one who owns the line card?

14 MR. BOWEN: I am going to object, Your Honor.  
15 This witness in response to cross from both me and  
16 Ms. Franco-Feinberg didn't know anything at all about  
17 virtual collocation. And now, magically, during the  
18 break he all of a sudden admits he knows enough about  
19 virtual collocation to differentiate that from a  
20 situation where Ameritech owns the line card. This is  
21 clearly coaching on the part of counsel or somebody  
22 else during the break, and it is not proper.

1           MR. BINNIG: That is just not the case. He  
2           is not an expert. What he testified what he did not  
3           know was the case was whether or not the virtual  
4           collocation terms and conditions in Illinois involved  
5           CLEC ownership of the line card or ILEC ownership of  
6           the line card. I am asking him if in the hypothetical  
7           where it were ILEC ownership of the line card, would  
8           the provisioning process differ from the provisioning  
9           process where there is no collocation at all, physical  
10          or virtual.

11          EXAMINER WOODS: There is no collocation.

12          MR. BINNIG: Where Ameritech Illinois owns  
13          the line card itself and there is no collocation,  
14          whether it be physical or virtual, by a CLEC, what  
15          Ameritech Illinois is arguing the Commission should do  
16          in this case, basically.

17          MR. BOWEN: Well, Your Honor, to make that  
18          comparison, the witness would have to actually know  
19          about virtual collocation which he's testified he did  
20          not before the break. So he can't make that  
21          contrasting answer without all of a sudden acquiring  
22          some magical knowledge about virtual collocation.

1           MR. BINNIG: No, he is talking about the  
2 provisioning process. I asked him to assume what the  
3 terms and conditions of virtual collocation are. I am  
4 asking him about the provisioning process.

5           MS. FRANCO-FEINBERG: Your Honor, I asked him  
6 to assume certain facts about what would be required  
7 in the virtual collocation. And Mr. Keown indicated  
8 he did not -- couldn't answer those type of questions.  
9 So I would have to join Mr. Bowen's objection on  
10 behalf of Rhythms, that that would be remarkable that  
11 suddenly Mr. Keown was able to divine this information  
12 or gather this knowledge within a short period of  
13 time.

14          MR. BINNIG: I think the record would show he  
15 did answer questions based on hypotheticals asked by  
16 Ms. Franco-Feinberg.

17          EXAMINER WOODS: The transcript will prove me  
18 right or wrong. My recollection is he did give some  
19 marginal answers to some of your hypotheticals  
20 concerning virtual collocation. I do think if those  
21 answers become expansive at this point, it's going to  
22 reflect upon the weight that can maybe attributed to

1       this witness' entire testimony, but I don't think it  
2       affects the admissibility. So he can answer the  
3       question.

4               A. Can you repeat the question? I'm sorry.

5               Q. Give it one more try. I want you to  
6       assume a virtual collocation scenario hypothetically  
7       where legal title to the line card is passed by the  
8       CLEC to Ameritech Illinois so Ameritech Illinois owns  
9       the line card on behalf of the CLEC.

10              A. Okay.

11              Q. I want you to tell me how the  
12       provisioning of line cards under that scenario would  
13       differ from the provisioning in a scenario where there  
14       were no collocation at all, no physical collocation or  
15       virtual collocation by CLECs, just Ameritech Illinois  
16       using its own line cards to provision service.

17              A. If Ameritech Illinois owns the line card,  
18       then the provisioning steps would be very simple, in  
19       that the CLEC would place an order for the broadband  
20       service, that order would flow through our systems,  
21       and be provisioned over the -- the system would select  
22       a line card and assign the service and provision it

1 with the systems available.

2 Q. And how would that differ from the  
3 virtual collocation hypothetical scenario?

4 A. Under a virtual collocation arrangement,  
5 the systems would have to still stop and determine who  
6 owns the card. There is going to be some breaks in  
7 the system on who owns the card. And then manual  
8 handling of that order would then have to take place  
9 to make that assignment, for assignment. Still the  
10 steps would have to take place of ordering that card,  
11 getting it to the right location, installing it in the  
12 NGDLC system, and provisioning the service after it  
13 has been properly installed and tested.

14 MR. BINNIG: That's all I have, Your Honor.

15 EXAMINATION

16 BY EXAMINER WOODS:

17 Q. That's something that Ameritech would  
18 have to do if they owned the card. At some point in  
19 time those cards are going to have to be installed?

20 A. Typically, those cards are installed at  
21 the initial turn up of the NGDLC system. They are  
22 pre-provisioned. They are sitting there. So that

1       when a service order comes through, it makes a  
2       selection and provisions the service. Now, the only  
3       time a technician would be tripped is if a service  
4       order comes through and there happens not to be a card  
5       there or we are out of capacity.

6               Q. Walk me through, just very briefly if you  
7       would, the way an NGLDC system is turned up.

8               A. Sure.

9               Q. You have got an order from somebody,  
10      right? You order the hardware and the software?

11              A. You have to order the hardware and  
12      software. We have done detailed engineering work.  
13      The remote terminal is set. The facilities, the LC-3  
14      and LC-3cs, are turned up between the central office,  
15      the OCD in the case of the LC-3c, and the COT in the  
16      case of the LC-3 and the POTS. Once that is in place,  
17      then all that equipment is built in to provision  
18      inventory systems, provisioning of the line cards  
19      based on forecast and other information that we might  
20      have. We have pre-assigned and pre-installed POTS  
21      cards as well as some of the ADLU cards to serve  
22      certain SAIs or Serving Area Interface, sorry.

1                   Once that is all inventoried and  
2     installed, once the CLEC places a service order for  
3     the broadband service, when it comes through our  
4     system, the inventory systems will look at the service  
5     system for the customer, determine if that is an NGDLC  
6     system there with an ADLU card in it, and if it is, it  
7     will find a port and pair that matches the address of  
8     the customers and then assign the service.

9                   Q.   But every card is not installed, right?  
10    Every slot doesn't have a card in it?

11                  A.   Every slot does not have a card in it.

12                  Q.   And if you have an exhaust situation,  
13    then somebody has to go out and put one in?

14                  A.   Yes, but that's done ahead of the service  
15    order, typically. The group that monitors the  
16    capacity of the box itself would be looking out for --  
17    would be using forecast data and other information .

18                  Q.   Right. But the function is the same.  
19    Somebody goes into the field and sticks a card in.

20                  A.   That's correct.

21                  Q.   Because you need more capacity on the  
22    switch.

1           A. That's correct.

2           Q. You need more capacity, you need more  
3 throughput, so somebody's got to stick a card in.

4           A. Right. If you need more ports, that is  
5 correct.

6           Q. That sounds just like what happens when a  
7 CLEC puts an order in. All of a sudden there is not  
8 enough capacity in the switch so somebody has to go  
9 out and put a card in.

10          A. The difference, I think, Your Honor, is  
11 that in a normal day-to-day operation we would be  
12 looking at those capacities in those slots and, of  
13 course, where the pairs are needed, where the ADLU  
14 capability is needed, and we would try to provision to  
15 those situations.

16                 In the case where the CLEC might own the  
17 card, we won't know. Therefore, that slot will not  
18 have a card in it. So we will always have to go out  
19 and place a card.

20          Q. Now I am really confused. You have got  
21 NGDLCs out in the field that serve serving areas.

22          A. That's correct.



1           Q. Right? And if you do projections on that  
2     serving area and you know -- what I think I hear you  
3     saying now is you know because of your projections in  
4     advance or sometime in advance that you are going to  
5     need extra capacity, you are going to need to do  
6     something different in that remote terminal to  
7     increase capacity because there is more demand out  
8     there. So in advance of that you can send out  
9     somebody to do this. At that point you turn it up.

10          A. Right.

11          Q. The CLEC orders a card that you are going  
12     to own, you know in advance that you are going to need  
13     to do that card, so you send somebody out to put the  
14     card in. I just frankly don't see the difference  
15     between what -- I don't understand the importance of  
16     the fact that in one case it is your projections that  
17     trigger that trip out and then in the other case it's  
18     an order. Why is that different?

19          A. Well, if one case it's whether or not the  
20     slots are already pre-provisioned.

21          Q. Okay. What does that mean?

22          A. That means a card is already sitting

1       there in the slot itself waiting for a service order  
2       to come through to be assigned to it.

3               Q.   That's not going to be the case every  
4       time Ameritech needs extra capacity; is it?  There is  
5       not always going to be a pre-provisioned card sitting  
6       there ready to go?

7               A.   We try to engineer our system so that  
8       that happens the majority of the time.

9               Q.   So whatever the capacity constraints are,  
10       whatever the capacity constraints in your system are  
11       right now, are your total expected usage over the  
12       foreseeable future?

13              A.   Not over the foreseeable future, but over  
14       some one or two-year forecasted period of time or six  
15       months, whatever the interval is.

16              Q.   Exactly.  So at some point somebody is  
17       going to have to go out and do something, you hope?

18              A.   Right.

19              Q.   And in this case somebody is going to  
20       have to go out and do something you know, and frankly  
21       at this point I don't see the difference.  Quite  
22       honestly, I don't see the difference between sending

1     your guy out based upon a projection that suddenly you  
2     need more and sending your guy out because they want  
3     to put one of your cards in a slot.

4             A.   Again, I think the difference is how  
5     often do you send the guy out, I think really is the  
6     question at this point.  Do I send him out once every  
7     six months or do I send him out once a day or once  
8     every five hours.

9             EXAMINER WOODS:  Okay.

10            MR. BOWEN:  Your Honor, I have a couple of  
11     questions in follow-up on what you just said earlier.

12                    RECROSS EXAMINATION

13            BY MR. BOWEN:

14            Q.  Mr. Keown, you testified that, I think I  
15     heard you say, that you believe the Company's policy  
16     is to pre-provision these cards but not to populate  
17     all three channel banks fully with cards; is that what  
18     you said?

19            A.  It's based on forecast and demand, yeah,  
20     whatever quantity we see as a forecasted demand but it  
21     won't be totally populated.

22            Q.  And how many of these actual Pronto sites

1       have you been to personally to look at the population  
2       of cards?

3               A.   I think I could say about four or five.

4               Q.   About four or five?

5               A.   Uh-huh.

6               Q.   Did you happen to go to the Pfleugerville  
7       office in Texas?

8               A.   No, I did not.

9               Q.   Where everybody else went during the  
10      Texas case?

11              A.   I did not go to that site.

12              Q.   Did you talk to anybody who was t here, by  
13      any chance?

14              A.   I had some discussion with people that  
15      went to the Pfleugerville, Texas, site.

16              EXAMINER WOODS:   Do you have a spelling on  
17      that, please?

18              MR. BOWEN:   It's P-F-L --

19              THE WITNESS:   I think it's P-F-L-U-E --

20              EXAMINER WOODS:   Now we have got three  
21      spellings.   Let's try one.

22              MR. BOWEN:   I think it's

1 P-F-L-E-U-G-E-R-V-I-L-L-E.

2 EXAMINER WOODS: Phonetically.

3 (Laughter)

4 Q. And did you read, there was a transcript  
5 that was created on the spot, wasn't there, of that  
6 visit?

7 A. I haven't seen the transcript from that.

8 Q. Well, in talking to the people who were  
9 there, did they tell you that the actual channel bank  
10 assembly that we actually saw down there only had the  
11 first row of cards populated and only half of those  
12 were ADLU cards, the rest of those were POTS?

13 A. I did hear that.

14 Q. So what's the -- assuming that that was a  
15 policy compliant deployment of these cards, what shall  
16 we conclude about how far ahead, if at all, the  
17 Company pre-provisions these ADLU cards?

18 A. That population, as I understood it, the  
19 way it was referred to me, relaid to me, was not in  
20 compliance with the company policy.

21 Q. So, we toured a representative office  
22 that wasn't representative then; is what you are

1 saying?

2 A. Unfortunately, that's true. And that  
3 situation has been corrected.

4 Q. Okay. Well, if you know, what do you  
5 provision in advance -- do you know that for a fact  
6 that the Company right now is provisioning ADLU cards  
7 in advance of demand? Do you know it for a fact?

8 A. I know for a fact that we are  
9 provisioning in the territories that I visited, yes.

10 Q. But you haven't visited Illinois; have  
11 you?

12 A. No, I have not.

13 Q. So you don't know for a fact that  
14 Ameritech Illinois is provisioning ADLU cards in  
15 advance of actual demand; do you?

16 A. I do not. But if they are following  
17 policy, the company policy, they will be  
18 pre-provisioning some ADLU cards in advance.

19 Q. Okay. What is some?

20 A. I don't know. It depends on the  
21 engineering guidelines and the engineering forecast  
22 that he has for a particular serving area that he is

1 building in.

2 Q. I know demand will vary by distribution  
3 area, but is it a guideline that is based upon I need  
4 to put in enough cards to satisfy the next week or  
5 month or six months of demand? Is that how it works,  
6 if you know?

7 A. I am not exactly sure of the guidelines,  
8 and I think it's some percentage. It is some  
9 percentage of the working lines in the area. For  
10 instance, if there is a hundred working lines out of  
11 the SAI, they will provision ten percent.

12 Q. So this must be some SBC-wide written  
13 down guidelines, it sounds like; right?

14 A. Yes.

15 MR. BOWEN: Okay. I would like a copy of  
16 that as a hearing data request, Your Honor, to have  
17 the written guideline that the witness has just  
18 testified to that supposedly guides the  
19 pre-provisioning of these ADLU cards in the field. I  
20 don't know if we are numbering these sequentially or  
21 how we are doing these, or if we need to.

22 EXAMINER WOODS: Actually, they are not doing

1       -- you will probably have to submit them as late-filed  
2       exhibits, if you wish. Just the fact that they are  
3       turned over does not make them an exhibit, until they  
4       are submitted.

5               MR. BOWEN: I understand. But is it your  
6       preference to number them or just track them as  
7       unnumbered record requests?

8               EXAMINER WOODS: Well, right now we have got  
9       nothing to track. Once they are in your hands, if you  
10      wish to submit them as late-filed exhibits, they  
11      should be sent to me, a copy to counsel, and we will  
12      take objections, if there are any at that time.

13              MR. BOWEN: On the off chance there could be  
14      more than one, can I suggest that we number this as  
15      Rhythms' Number 1, Request Number 1, just for tracking  
16      purposes? Okay. That will be Rhythms' Request Number  
17      1.

18              Q. Now, when you -- assume with me that you  
19      are talking about the scenario you described to His  
20      Honor that you have pre-provisioned some cards and  
21      assume that you have an available port appearance for  
22      a DSL service on one of those cards; can you assume



1       that with me?

2               A.   Okay.

3               Q.   Don't you still have to roll a truck to  
4       go to the SAI or the crossbox to cross connect that  
5       copper feeder from the RT to the SAI to the right  
6       distribution pair to serve that customer with the DSL?

7               A.   That is correct.   But that's one truck  
8       roll versus two truck rolls.

9               Q.   Are you testifying that the same  
10      technician can't go out, do a cross connect and stop  
11      at the RT and pop a card in, if he needs to?

12              A.   In some cases there are areas where those  
13      are different technicians, I think, for the  
14      electronics versus the cable pairs.

15              Q.   All right.   And in some areas they are  
16      the same person; aren't they?

17              A.   They might be.

18              Q.   Do you know what the Illinois policy is  
19      on that, by any chance?

20              A.   I don't know what the Illinois policy is.

21              Q.   Finally, you complain in your testimony  
22      about cards occupying slots without live service being

1 up on those cards and that's a bad thing because it  
2 reduces the load factor; don't you?

3 A. Can you direct me to where you are  
4 reading that?

5 Q. It's your whole calculation of, if a CLEC  
6 does not occupy all four appearances on the card, your  
7 capacity factor is 97 percent and ours would be 61  
8 percent, or something like that; remember that?

9 A. I remember that's one.

10 Q. If you are in fact pre-provisioning ADLU  
11 cards in advance of demand, and it's a month or six  
12 months or a year in advance as you testified in  
13 response to His Honor's questions, the load factor  
14 isn't 90 percent at all; is it?

15 A. Well, there is a difference there. If  
16 Ameritech Illinois owns the line card, it is able to  
17 select any port on that card and assign it if that  
18 appearance shows up on a SAI.

19 Q. That wasn't the question, Mr. Keown. The  
20 question was your load factor cannot be 93 percent if  
21 you are pre-provisioning these cards?

22 A. It will not initially.

1           Q. And the longer you pre-provision in  
2 advance, the worse your load factor becomes; isn't  
3 that factually correct?

4           A. I haven't made any calculations to see  
5 how that plays out, Mr. Bowen.

6           Q. Isn't that a matter of simple logic,  
7 Mr. Keown?

8           A. Again, I haven't made any real  
9 calculations to see how many slots and ports and how  
10 the utilization would play out.

11          Q. Finally, is there any reason why a CLEC  
12 couldn't pre-provision via virtual collocation or  
13 physical collocation just as you say Ameritech is  
14 going to do based on its own demand for services?

15          A. Again, I would have to do an assumption,  
16 make an assumption, that the virtual collocation rule s  
17 allow that.

18          Q. Okay. If you need to make that  
19 assumption, please make it. And can you answer that  
20 question then?

21          A. If that occurred, I think the same  
22 situation would still -- will still happen. And that

1 is that the location of the cards may or may not be  
2 where you want to serve customers so you may still get  
3 into some utilization and capacity management issues.

4 Q. But in pre-provisioning wouldn't you  
5 agree that, if the CLEC does what you say you are  
6 doing, it can reduce those lead time cycles for the  
7 provisioning of DSL services?

8 A. Not by much because, again, if the CLEC  
9 pre-provisioned and owned the card, the order still  
10 calls for manual handling of that order to be  
11 assigned. There's still going to be some service  
12 provisioning intervals.

13 Q. Simply because of the constraint you  
14 testified to that your systems don't currently support  
15 flow-through assignment of CLEC cards, correct?

16 A. Correct.

17 MR. BOWEN: Okay, that's all I have.

18 EXAMINER WOODS: If you know this is not a  
19 proprietary number, how much does an ADLU card cost?

20 THE WITNESS: I don't know what the list  
21 price is.

22 EXAMINER WOODS: A thousand dollars?

1 THE WITNESS: At least.

2 EXAMINER WOODS: Two thousand?

3 THE WITNESS: I would be guessing.

4 EXAMINER WOODS: Is that information the  
5 witness can provide?

6 MR. BINNIG: I think we could also do that as  
7 a response to another data from the hearing examiner.  
8 You want the list price of an ADLU card?

9 EXAMINER WOODS: Well, actually, I would like  
10 whatever the cost is. I don't care about the list  
11 cost, the list price. I would like to know what  
12 Ameritech is actually paying.

13 MR. BINNIG: Ameritech? I think they have  
14 probably -- we will submit it but I think they are  
15 probably going to view that as proprietary.

16 EXAMINER WOODS: That's fine. Everybody  
17 signed a proprietary agreement?

18 MR. BOWEN: Yes.

19 EXAMINER WOODS: One more bite, Mr. Binnig?

20 MR. BINNIG: I am full, Your Honor.

21 EXAMINER WOODS: Thank you, Mr. Keown. Call  
22 your next witness.

1 MR. BINNIG: Next witness will be John Lube.

2 J O H N P. L U B E

3 called as a Witness on behalf of Ameritech Illinois,  
4 having been first duly sworn, was examined and  
5 testified as follows:

6 DIRECT EXAMINATION

7 BY MR. BINNIG:

8 Q. Afternoon, Mr. Lube. Will you state your  
9 full name and business address for the record, please.

10 A. My name is John P. Lube, L-U-B-E, and my  
11 business address is Three Bell Plaza, Dallas, Texas  
12 75202.

13 Q. And, Mr. Lube, do you have before you  
14 three pieces of testimony? The first one has been  
15 marked for identification as Ameritech Illinois  
16 Exhibit 6.0, consists of 48 pages of typed questions  
17 and answers, and has attached to it five attachments  
18 labeled Attachments JPL-1 through JPL-5?

19 A. Yes, I do.

20 Q. And is this document, Ameritech Illinois  
21 Exhibit 6.0, prepared under your direction or  
22 supervision?

1 A. Yes, it was.

2 Q. Do you have any additions or corrections  
3 to Ameritech Illinois Exhibit 6.0?

4 A. No, I do not.

5 Q. If I were to ask you the questions set  
6 out in the 48 pages of typed questions and answers in  
7 Ameritech Illinois Exhibit 6.0 today, would your  
8 answers be the same as reflected in this document?

9 A. Yes, they would.

10 Q. And do the Attachments JPL -1 through 5,  
11 were they prepared by you or under your supervision or  
12 direction?

13 A. Yes, they were prepared by me.

14 Q. Do they accurately purport what they  
15 purport to reflect?

16 A. Yes, sir, they do.

17 Q. Let's turn to what's been marked as  
18 Ameritech Illinois Exhibit 6.1 for identification.  
19 This is "Rebuttal Testimony on Rehearing of John P.  
20 Lube on Behalf of Ameritech Illinois." Was this  
21 prepared by you or under your supervision and  
22 direction?

1           A. Yes, it was.

2           Q. Do you have any additions or corrections  
3     you would like to make to Ameritech Illinois Exhibit  
4     6.1?

5           A. Yes, I have two corrections to this  
6     exhibit. First, on page 4, on line 9, toward the end  
7     of that line, three words need to be deleted. Those  
8     are the words "portion of an."

9           And then on page 11 there is a Footnote  
10    Number 6 and on the first line there is a new sentence  
11    that starts out "As this provisions." That really  
12    needs to say "As these provisions establish." In  
13    other words, "this" becomes "these" and "establishes"  
14    becomes "establish." And those are all the  
15    corrections to that exhibit.

16          Q. If I were to ask you the questions with  
17    those corrections set out in Ameritech Illinois  
18    Exhibit 6.1 today, would your answers be the same as  
19    reflected in this exhibit as corrected?

20          A. Yes, they would.

21          Q. Let's turn to Ameritech Illinois Exhibit  
22    6.2 which is entitled "The Surrebuttal Testimony on



1 Rehearing of John P. Lube on Behalf of Ameritech  
2 Illinois," 35 pages of typed questions and answers.  
3 Was Ameritech Illinois Exhibit 6.2 prepared by you or  
4 under your supervision and correction?

5 A. Yes, it was prepared by me.

6 Q. Do you have any additions or corrections  
7 to Ameritech Illinois Exhibit 6.2?

8 A. Yes, I have two very quick corrections to  
9 this exhibit. First, on page 3, on line 12, toward  
10 the end of that line there is an open parens, "pages  
11 22 through 25," and there should be a close parens  
12 after the number 25.

13 And then on page 16, line 18, there  
14 should be an open quote before the word "component."  
15 And those are all my changes.

16 Q. If I were to ask you the questions set  
17 forth in Ameritech Illinois Exhibit 6.2 today, would  
18 your answers be the same as reflected in this document  
19 as you have just corrected?

20 A. Yes, they would.

21 MR. BINNIG: I would move for the admission  
22 of Ameritech Illinois Exhibit 6.0 including the

1 attached Exhibits JPL-1 through 5, Ameritech Illinois  
2 Exhibit 6.1 and 6.2, and offer the witness for cross  
3 examination.

4 EXAMINER WOODS: Objections?

5 MR. BOWEN: No objection, Your Honor.

6 EXAMINER WOODS: Documents are admitted  
7 without objection.

8 (Whereupon Ameritech Illinois  
9 Exhibits 6.0, 6.1 and 6.2  
10 were marked for purposes of  
11 identification and admitted  
12 into evidence.)

13 EXAMINER WOODS: Witness is available for  
14 cross.

15 MR. BOWEN: Thank you.

16 CROSS EXAMINATION

17 BY MR. BOWEN:

18 Q. Mr. Lube, is this, what, at least five or  
19 so of our discussions together?

20 A. At least.

21 Q. All right. Let's start with your direct  
22 testimony, Exhibit 6.0, and my expectation, just so we

1       can be on the same page here, is that we will --  
2       somebody will move in your -- our discussion from the  
3       tariff case on these issues. I am going to try to  
4       avoid plowing that ground again, but I will try to  
5       pick out things that I think are at least somewhat  
6       different from before and try to minimize the length  
7       of our chat today, if you can cooperate with me on  
8       that. Will that work for you?

9               A. I will sure try.

10              Q. Could you turn, please, to page 2 of that  
11       direct testimony? This, I know, was not part of that  
12       cross examination. Am I correct that the -- well,  
13       strike that. Have you reviewed the testimony filed on  
14       behalf of Ameritech Illinois in the case below in this  
15       particular arbitration?

16              A. Do you mean in the rehearing of this  
17       arbitration?

18              Q. No, I mean in the original testimony.

19              A. The original arbitration.

20              Q. Yeah.

21              A. No, sir, I have not.

22              Q. Are you aware that Ms. Schlackman in fact

1 addressed Project Pronto issues, although briefly, in  
2 her direct testimony filed in the spring?

3 A. Actually, I understand that to be the  
4 case.

5 Q. But you have never seen that testimony  
6 yourself?

7 A. I have not looked at that testimony, no,  
8 sir.

9 Q. Well, it was shorter than yours, I can  
10 tell you that. I think it was one Q and A. But in  
11 becoming familiar with the case that the Company put  
12 on below, you are aware, I take it, that the Project  
13 Pronto issue was Issue 7 in the original case?

14 A. I was not aware of the issue number, no,  
15 sir.

16 Q. Are you aware that in fact it was a  
17 numbered issue?

18 A. I actually was not aware that it was a  
19 numbered issue in the proceeding until I learned of  
20 the Order.

21 Q. Well, let me just so the record is clear  
22 show you a copy of Ms. Schlackman's direct testimony,

1 Exhibit 1.0, from the case below and ask you just to  
2 read aloud for the record from page 24 of that  
3 testimony the text of Issue 7.

4 A. "In addition to providing line sharing  
5 over homerun copper loops, must Ameritech Illinois  
6 also allow CLECs to provide xDSL services utilizing  
7 line sharing on loops that traverse fiber-fed digital  
8 loop carrier (DLC) systems between the remote terminal  
9 and the central office."

10 Q. Thank you. So it's fair to conclude from  
11 that testimony, is it not, even though you haven't  
12 seen it before, that Ameritech certainly had notice of  
13 what Rhythms was asking for in that case?

14 MR. BINNIG: I will object, Your Honor. I  
15 think it's beyond the scope of this witness'  
16 testimony. It's also irrelevant.

17 EXAMINER WOODS: What is this testing,  
18 Mr. Bowen?

19 MR. BOWEN: Simply whether or not the Company  
20 had the opportunity to know whether -- and I will get  
21 to whether Mr. Lube had any involvement in the  
22 decisions about what to file in that case.

1           MR. BINNIG: I don't see how that's relevant,  
2   Your Honot. The Commission has granted re-hearing on  
3   this issue.

4           MR. BOWEN: I will await your ruling on it.  
5   If you want me to move on, I will. If you want the  
6   witness to answer the question, that's fine with me,  
7   too.

8           EXAMINER WOODS: Okay, move on.

9           Q. Okay. You indicate that you didn't file  
10 any testimony this spring; in fact, you weren't even  
11 aware of Ms. Schlackman's testimony, Mr. Lube. Were  
12 you asked to file written testimony on Project Pronto  
13 issues this spring?

14          A. Well, first of all, I answered you a  
15 minute ago that I was aware that Ms. Schlackman filed  
16 testimony, but it was after the Order had come out,  
17 just to clarify the record there.

18          Q. Take us back to the spring when the  
19 testimony was being considered that the Company  
20 actually filed. Were you asked to file testimony?

21          A. No, sir.

22          Q. Were you consulted on whether yo ur

1 expertise would be required as part of the case?

2 A. No, sir. I wouldn't expect I would be,  
3 now that I have read Issue Number 7.

4 Q. Okay. Had you filed testimony on Project  
5 Pronto issues anywhere else at that time, for example,  
6 in California?

7 A. Just so I answer correctly, when was the  
8 testimony filed for the initial arbitration? Was it  
9 in --

10 Q. I believe it was in June, but it could  
11 have been May. But it wasn't July.

12 A. If I could be as precise as your  
13 question, I was beginning to prepare testimony for  
14 states such as California in the late spring time  
15 frame.

16 Q. Such as California and Texas, for  
17 example; right?

18 A. For example.

19 Q. Okay. In effect, you have testified at  
20 or about that time on -- in some detail on Project  
21 Pronto issues in Texas; isn't that right?

22 A. Actually, I am trying to recall. I am

1       trying to recall. I believe it was just California at  
2       that point in time.

3               Q. It runs together in my head too, so no  
4       fault there. You certainly testified on the Project  
5       Pronto issues in the Ameritech Illinois tariff case;  
6       didn't you?

7               A. Yes, sir, I did.

8               Q. Now, you recall your prefiled testimony  
9       and our discussion in cross examination in the long  
10      tariff case?

11              A. To some extent I do, yes, sir.

12              Q. Do you recall that your answers at the  
13      time were true and correct and complete?

14              A. I would absolutely say they were. I  
15      can't recite what all of those were, but, yes, sir,  
16      they were.

17              Q. All right. Now, I asked Mr. Keown this  
18      question and I am going to ask you the same questions.  
19      I want to focus, not on all the regulatory terminology  
20      here, including whether it's a broadband service or a  
21      UNE or subloops or what line sharing means in the FCC  
22      definition. I want to leave all that aside. I want



1 to focus with you on the technical characteristics of  
2 what Project Pronto is. That is, pretend you are a  
3 network and line engineer and you want to talk about  
4 Project Pronto rolling out. And you know the FCC  
5 exists but that's about all you know, okay. Can you  
6 go there with me?

7 A. I will do the best I can. To a large  
8 extent, though, the regulatory framework is a very  
9 large driver in answers and discussions of Project  
10 Pronto.

11 Q. Fair enough. But I want you to focus  
12 with me in that context, and answer please what --  
13 compare the May, late May, early June time frame when  
14 the testimony was filed below with the Company's  
15 current plans on Project Pronto. And can you tell me  
16 -- I can be specific -- can you tell me what has  
17 changed, if anything, in terms of the technical roll  
18 out of Project Pronto in Illinois between that time  
19 period last spring and today?

20 A. The only change that I can recall right  
21 now regarding Ameritech Illinois would be the vendor  
22 of the OCD, the vendor selection for the OCD. Beyond

1       that, I cannot think of any other specific changes  
2       that would have occurred.

3               Q.   And when you say the vendor selection of  
4       the OCD, I take it you are referring to what Mr. Keown  
5       testified to which is that, instead of using the  
6       Lucent CBX 500 ATM switch, Ameritech Illinois will use  
7       a Cisco ATM switch; is that right?

8               A.   That's correct.

9               Q.   Now, let's get, unfortunately, back into  
10      what the FCC had to say about what line sharing is and  
11      is not.  You spend time on that in your testimony; do  
12      you not?

13              A.   Yes, sir, I did.

14              Q.   Let's turn to page 4 and 5, for example,  
15      of your direct testimony.  You quote the FCC, in  
16      particular you underlined a portion of some sentences  
17      at the top of page 5 where the FCC said that line  
18      sharing is only possible on metallic loops; do you see  
19      that?

20              A.   Yes, I do.

21              Q.   Now, I want to talk with you about the  
22      relative timing of some events.  One event I want to

1 talk about is the FCC's Line Sharing Order itself and  
2 another thing I want to talk about is SBC's  
3 announcement to the world or to the FCC of Project  
4 Pronto. So keep those two tracts in mind, if you  
5 would. Do you know, for example, when the FCC's Line  
6 Sharing Order was announced?

7 A. I'm not sure exactly when it was  
8 announced. I think it's official release date was  
9 sometime late in the year. I mean, there were several  
10 FCC orders that came out late in the year. It might  
11 have been December of 1999, but I don't know that for  
12 a fact.

13 Q. Well, actually, you do know it for a fact  
14 if you put it directly in your testimony in Footnote  
15 1.

16 A. Well, I guess, I could look there.

17 Q. Was December 9 the actual release date of  
18 the Order, the Line Sharing Order?

19 A. That's correct.

20 Q. Wasn't it announced in November of 1999?

21 A. I don't recall when the FCC press, news  
22 release, was issued.

1           Q. Okay. Let's assume that it was -- that  
2 my question actually is a fact for now. Assume with  
3 me, please, that the FCC announced this line sharing  
4 decision in November of 1999. Can you assume that  
5 with me?

6           A. Yes.

7           Q. Now, isn't it correct that the  
8 announcement to the world, if you will, by SBC of  
9 Pronto occurred in something called an Investor  
10 Briefing released in October of 1999?

11          A. I believe that was my first hearing of  
12 it, so I guess that would be its initial announcement.

13          Q. Now, the document that we are talking  
14 about doesn't happen to have a date in October. Do  
15 you know the actual date on which that was released?

16          A. No, I do not.

17          Q. Okay. Am I correct that Project Pronto  
18 resulted from an issuance by SBC of a request for  
19 proposal for what was called a big DLC system at the  
20 time?

21          A. I don't have firsthand knowledge that  
22 there was any particular request for proposal, but I

1 am familiar with the fact that that's how we as a  
2 corporation look at new technology. So it would not  
3 surprise me if that's how that was done.

4 Q. Isn't it correct that the first RFP on  
5 what became Project Pronto was issued in March of  
6 1998?

7 A. I don't know dates of any RFPs in  
8 particular. I will say this, I actually had a job  
9 myself with SBC, actually it was with Southwestern  
10 Bell Telephone Company at the time, back in the '92,  
11 '93 time frame where we sent out RFPs constantly on  
12 DLC technology even in the short time, the two years,  
13 that I was on that job. It would not surprise me if  
14 we had RFPs and supplemental RFPs going to NGDLC or  
15 DLCs, actually vendors, constantly throughout the  
16 '90s. That would not surprise me at all.

17 Q. Well, actually, I wasn't inquiring as to  
18 what would surprise you, Mr. Lube. I am asking  
19 specifically wasn't there, in fact, an RFP issued by  
20 SBC in March of 1998 for what is now known as Project  
21 Pronto?

22 A. I don't have personal knowledge of that.

1 I believe I have heard that there were RFPs used  
2 related to Project Pronto but I don't have specific  
3 dates, knowledge as to specific dates, as to when they  
4 were issued.

5 MR. BOWEN: Okay. I am going to ask then as  
6 Rhythms Number 2 for the actual release date and a  
7 copy of the RFP that resulted in Project Pronto.

8 EXAMINER WOODS: That will be provided?

9 MR. BINNIG: If such a document exists, we  
10 will provide it.

11 MR. BOWEN: It does exist, Your Honor,  
12 because I have seen it.

13 EXAMINER WOODS: I guess we can actually get  
14 the RFP then.

15 MR. BOWEN: Well, here is the constraint. I  
16 do these cases, as you know, in a number of states and  
17 I have gotten into this elsewhere. And I would hope  
18 that Mr. Lube knows about this document but,  
19 obviously, he is not totally clear on it. So I need  
20 to ask for this officially, even though I already have  
21 it myself. I would be happy to talk to counsel for  
22 Ameritech off line to give him a document number so I

1       can get a copy of it for this case.

2               MR. BINNIG: He may even let us use his  
3       existing copy.

4               MR. BOWEN: That would be even better.

5               Q. Okay. Well, let's assume for now,  
6       Mr. Lube, that in fact SBC did issue an RFP for what  
7       became known later as Project Pronto in 1998. Isn't  
8       it correct that the SBC board of directors approved  
9       the Project Pronto, perhaps not calling it that, but  
10      approved the Project Pronto broadband DLC project in  
11      June of 1999?

12              A. I have heard that's the case, but I have  
13      no personal knowledge of that approval.

14              Q. Am I right that in general it is the  
15      practice, and in particular it was the practice of SBC  
16      in FCC cases like the line sharing case, to file  
17      written comments with the FCC suggesting how they  
18      ought to come out on things?

19              A. Well, once again, I don't know as a  
20      personal knowledge that we filed comments and reply  
21      comments. I would imagine that we did, but I cannot  
22      personally vouch for the fact that we did.

1           Q. Isn't it correct that nowhere in the  
2       filed comments with the FCC did SBC tell the FCC that  
3       it was planning to roll out something that became  
4       known as Project Pronto, meaning broadband DLC that  
5       would support DSL services?

6           A. Sorry. Did you ask is it true that it  
7       was not?

8           Q. You didn't tell the FCC about Pronto; did  
9       you?

10          A. I don't know what was in comments that I  
11       don't even know whether they were filed or not,  
12       Mr. Bowen. But I would assume, just as a personal  
13       opinion, that if we were planning a new technology at  
14       that point in time, that we would probably not have  
15       disclosed that for competitive reasons. I would  
16       consider that competitively sensitive information.

17          Q. Well, you are relying heavily on the FCC  
18       Order where it simply said you can't lineshare on DLC;  
19       aren't you?

20          A. I am actually not relying on an FCC  
21       statement like that. I am relying on an FCC statement  
22       that line sharing does not exist on fiber. That's



1       what I am relying on.

2               Q.   Well, if the FCC didn't even know about  
3       the possibility of fiber-fed DLC systems supporting  
4       ADSL services, then isn't it correct that it couldn't  
5       have decided anything about that issue since it didn't  
6       know about it, in the Line Sharing Order?

7               A.   I personally would imagine that it would  
8       have made no difference at all, because the way the  
9       FCC addressed line sharing as an electromagnetic  
10      sharing of two frequencies on a physical copper pair,  
11      and that line sharing which by the way stops at the  
12      splitter, I would imagine that that wouldn't have made  
13      any difference to the FCC.

14              Q.   You would imagine that?  What does that  
15      mean?

16              A.   The FCC looked at line sharing -- as I  
17      just said, they looked at line sharing as the  
18      co-existence of two electromagnetic signals, one for  
19      data, one for voice, on the same physical copper pair,  
20      and that line sharing that they looked at involved a  
21      splitter.  If you think of the model where you have a  
22      splitter in the central office and a copper loop that

1 goes from the central office all the way out to the  
2 customer's premises, that line sharing exists on that  
3 copper loop, that full copper loop all the way to the  
4 splitter.

5 If you were talking about a DSL capable  
6 DLC at a remote terminal, the splitter would normally,  
7 and as it has turned out is, at that NGDLC remote  
8 terminal, that line sharing would stop at the point  
9 where that copper stopped because that's where the  
10 splitter is located. So in that context I would  
11 imagine that the FCC would have not needed to know if  
12 anyone was looking at DSL capable DLC.

13 Q. But you are not -- you are not personally  
14 aware that the Company ever told the FCC about Pronto  
15 at all, is that your testimony, before the line  
16 sharing ever came out?

17 A. Well, I think we did tell them before the  
18 Line Sharing Order came out because we issued the  
19 public document announcing it in October and the Order  
20 came out in December. So we did tell them before.

21 Q. Poorly phrased question. You didn't tell  
22 them in your filed comments in the docket, to your

1 knowledge; is that right?

2 A. I have no knowledge of whether it was or  
3 was not discussed.

4 Q. Do you have any knowledge of whether FCC  
5 filed any ex partes in the case prior to the release?

6 A. In the line sharing case?

7 Q. Yeah.

8 A. I have no knowledge of that.

9 Q. So I guess you wouldn't know whether SBC  
10 and any ex partes disclosed Pronto to the FCC before  
11 the Order came out?

12 A. I would not know that.

13 Q. I want you now to take the perspective of  
14 an end user customer with me. Pretend you don't know  
15 about all the stuff you know about but you know what a  
16 telephone is and you know you want to get data  
17 services. From a customer perspective, isn't the  
18 chief benefit of line sharing that they can add data  
19 service without having to add a second line?

20 A. If you have a line shared data service,  
21 yes, that would be the benefit.

22 Q. And isn't it true that the average

1 customer does not know or care about things like  
2 NGDLCs and OCDs and ATMs and Litespan 2000?

3 A. The average customer would not know that.  
4 They would have to know about the flavor of DSL and  
5 whether it was a lineshareable flavor or not.

6 Q. Fair enough. But they don't even have to  
7 know that it actually happens to be called ADSL; do  
8 they? All they have to know is it is the kind of ADSL  
9 that they can get that can co-exist on their existing  
10 analog POTS line?

11 A. Yes, they would need to know just that.

12 Q. And isn't it correct also that from a  
13 customer perspective the average customer doesn't want  
14 to know how voice and data on one line actually  
15 happen. All they want is for that to happen, that is,  
16 for it to work?

17 A. From the end user customer's perspective,  
18 yes, of course, that's correct.

19 Q. Okay. Let's turn back to about page 9 of  
20 your direct testimony, please. And here you are  
21 testifying to what you believe the impact of Project  
22 Pronto on some other line sharing scenarios, meaning

1       what I might call homerun copper; is that fair?

2               A. Yes. In fact, I would even personally  
3       prefer to characterize to them as not just some other  
4       line sharing scenarios but the line sharing scenarios  
5       defined by the FCC.

6               Q. I know you would. But didn't Ameritech  
7       at one point --and we will get to this later -- didn't  
8       Ameritech at one point, even on its wholesale  
9       broadband service, refer to line sharing as one of the  
10      configurations it was offering?

11              A. Yes, it used that, because there was one  
12      piece of the service which was the copper pairs over  
13      which line sharing occurred.

14              Q. Well, in the broadband service  
15      configuration, formerly known as line sharing, isn't  
16      it correct that from a customer perspective they were  
17      getting both voice and data on a single line coming  
18      into their house?

19              A. Yes, we have always acknowledged that the  
20      end user customer's perspective is that they get both  
21      of those services on the same pair that comes into  
22      their house.

1           Q. Okay. Let's focus then back on page 9,  
2 line 6 through 8. And the statement here I want to  
3 focus on is, and I am quoting here, "Therefore,  
4 Project Pronto has no impact" -- your underlying  
5 emphasis there -- "on the availability of copper loops  
6 or copper subloops to a CLEC for line sharing in  
7 accordance with the FCC's Line Sharing Order;" do you  
8 see that?

9           A. Yes, I do.

10          Q. When you say availability, did you mean  
11 the physical availability or the useability of copper  
12 loops in that sense?

13          A. Well, for certain the physical  
14 availability. And if the existing copper loops are,  
15 the pre-existing copper loops, are DSL capable, then I  
16 would say the useability.

17          Q. Okay. Well, let's talk about both those.  
18 When I say physical availability, I mean -- I think  
19 you mean too, and I want to clarify this -- you mean  
20 Project Pronto will not take out of service, at least  
21 not initially, existing copper loops that are all  
22 copper from the premises of the customer to the

1       central office; right?

2               A.   That's correct.

3               Q.   And what is the commitment that the  
4       Company made not to take copper loops out of service?  
5       Can you just summarize that briefly here for this  
6       record?  This is the waiver order promises the Company  
7       has, the voluntary commitments the Company has, made  
8       to leave copper loops up for some period of time.

9               A.   Right, if I can remember them correctly,  
10       and this is from memory, the commitment was made that  
11       mainframe terminated copper loops would not be removed  
12       in NGDLC equipped remote terminal locations through  
13       the period in time September 2000 and, one, except if  
14       required by act of God, I believe was one of the  
15       commitments.  And the second one was that by the end  
16       of 2000 -- I am trying to remember if it was 2002 or  
17       2003.  The years kind of run together.  But SBC's  
18       ILECs would not remove more than five percent of  
19       mainframe terminated copper.  And it is September of  
20       2002 or September of 2003.  I just can't remember the  
21       year right now.

22              Q.   But in both cases that is a time limited

1 voluntary commitment; isn't that fair? It's not  
2 perpetual?

3 A. Yes, that's correct.

4 Q. So do I interpret that correctly to mean  
5 that, once we get to the later of those two dates  
6 whether it's 2002 or 2003, after that date the SBC  
7 could remove whatever it wanted to of homerun copper  
8 and not violate those voluntary commitments, five  
9 percent, ten percent, fifty percent, a hundred  
10 percent?

11 A. Well, in a hypothetical sense those time  
12 limited commitments would allow that, but it would be  
13 totally -- I mean, it just would be totally improbable  
14 that SBC would need to or want to do that in any large  
15 measure. To take out homerun copper if it's being  
16 used, you have to have an alternative facility placed  
17 or alternative capacity placed to be able to move  
18 those working customers over to. That would take a  
19 very large investment to do that.

20 As SBC pointed out to the FCC and the  
21 CLEC community and the public when we offered those  
22 voluntary commitments, we said up front that there are



1 specific normal business needs to remove copper. You  
2 may have re-arrangements of your plant that would  
3 warrant some of that. You might have certain bad  
4 sections of cable that are not -- it's not cost  
5 effective to repair or replace those sections, but  
6 instead replace that piece of cable in its entirety.  
7 So there are certain conditions under which it is just  
8 good business sense to make those kinds of changes to  
9 your copper network.

10 But there would be no business reason for  
11 SBC to go out and, as you hypothesized, remove fifty  
12 or a hundred percent of our mainframe terminated  
13 copper loops.

14 Q. If you think it's completely infeasible  
15 and would be a bad business choice to do so, I take it  
16 then that you on behalf of Ameritech Illinois won't  
17 mind committing here on the stand today to extending  
18 that date from 2002 to 2003 to 2010, because there is  
19 no risk to do that anyway?

20 A. I am sorry I can't do that. I can't  
21 establish that policy.

22 Q. So the best then we can count on is

1     having our homerun copper loops be available perhaps  
2     up through September of 2002 or 2003 under your -- the  
3     Company's voluntary commitments then; right?

4             A.   That's under the voluntary commitments,  
5     yes.   But, again, we are a normal business trying to  
6     make normal business decisions that make sense and  
7     that are cost effective.   And it would just -- you  
8     know, I can't sit here and say any particular percent  
9     by any particular date, other than what's been already  
10    promised by the executives of SBC.   I cannot commit to  
11    you any particular change in that policy.

12            Q.   Okay.   Just trying to understand what we  
13    can expect here.   All right.   You talked about copper  
14    being impossible to maintain or too expensive to  
15    maintain as one of the possible reasons why you would  
16    need to switch over to Project Pronto.   Isn't that in  
17    fact -- isn't savings on copper outside loop plant the  
18    chief driver of the the posit in the net value of  
19    Project Pronto, meaning in the investment briefing  
20    didn't the Company tell investors that it would save  
21    the entire investment cost of Pronto by maintaining  
22    the savings?

1           A. My recollection is that the investment in  
2   Pronto would be able to be offset by a combination of  
3   expense savings and capital savings, both.

4           Q. Let's focus just in on expense savings.  
5   You can't realize those expense savings unless at some  
6   point you stop maintaining two separate networks  
7   action; can you?

8           A. Well, my further recollection of how  
9   those savings were broken down -- and this is from  
10  memory -- is that, first of all, Pronto is not just  
11  NGDLC systems being placed in an overlay kind of a way  
12  over copper loops but also includes the VTOA that  
13  Mr. Keown talked about and the rolling of T1 circuits  
14  off of existing copper loops to fiber, so that Pronto  
15  is a much larger animal than just the NGDLC systems we  
16  are talking about. So there are considerable -- from  
17  what I understand, there are considerable anticipated  
18  maintenance savings that are related to changing  
19  circuit switched tandem switches to ATM switches,  
20  changing circuit switched trunk groups to VTOA type of  
21  technology, to eliminating the T1s or at least rolling  
22  as many of those as possible off of the copper

1 facilities.

2                   So I would have to say very plainly that  
3 Pronto is not, the cost of Pronto, is not offset by  
4 eliminating the maintenance savings of taking out  
5 copper loops. As a matter of fact, to clarify what I  
6 said, you know, maintenance is an issue, if  
7 maintenance expense is an issue that triggers the  
8 removal of a piece of copper cable, I am not talking  
9 about the normal maintenance of that cable; I am  
10 talking about one that is especially expensive to  
11 maintain, the cable is wet or it's an old lead sheet  
12 cable, something that would cause it to be  
13 extraordinarily expensive to maintain. That's what I  
14 am talking about when I am talking about retirement of  
15 copper for maintenance expense reasons.

16                  Q. What I hear you saying is that the  
17 Company plans -- because my focus was perhaps too  
18 narrow and you refocused me to include the VTOA  
19 portion, and you talked about moving out of circuit  
20 switching, are you saying that all these net savings  
21 are based on the Company's plan to migrate its entire  
22 network to an ATM network?

1           A. I would not say that, no, sir.

2           Q. Significant portions of its network to  
3    ATM?

4           A. No. Well, the VTOA is interoffice. It  
5    is not loop. So if we are talking the loop side, no,  
6    we are not talking about the migration of the loop  
7    network entirely to -- I'm not sure how you would  
8    characterize the question, ATM, network or whatever.

9           Q. All right. Let's talk about again  
10   getting back to your no impact plan here. I know you  
11   were here when I was discussing the field cross talk  
12   issue with Mr. Keown. You have your own testimony  
13   about that, too; don't you?

14          A. Yes, I do, that's correct.

15          Q. Isn't it correct that all of the cross  
16   talk calculations done by manufacturers of DSL  
17   equipment assume central office placement of the  
18   transceivers and not field replacement of the  
19   transceivers?

20          A. I can't speak for the calculations done  
21   by all manufacturers. So I don't know whether they  
22   are all central office or field and central office

1 combined or not.

2 Q. Are you familiar at all with the  
3 calculational approach to cross talk calculation that  
4 the industry has used?

5 A. I am familiar with mathematical modeling  
6 that the industry standards group uses or groups use  
7 to do that.

8 Q. And those mathematical models are the  
9 basis, are they not, for the power spectral density  
10 masks and the calculations of how much power you can  
11 put across a particular loop using a particular kind  
12 of DSL technology?

13 A. That's my reading of those models.

14 Q. And are all of those models based on the  
15 assumption that the DSL transceiver at the Company end  
16 will be at the central office?

17 A. That I don't know. There may be ways in  
18 those models to reflect calculations or ways to make  
19 calculations for remote located transmitters. I'm not  
20 sure.

21 Q. Well, you are aware, are you not, that  
22 subcommittee T1E1.4 of ANSI is looking at this very

1 issue right now?

2 A. I am not only aware of that, but I am  
3 also aware of the fact that NRIC, the federally  
4 chartered industry forum, was also looking at that.

5 Q. In fact, I think you testify to that way  
6 at the back of your testimony, one of your  
7 testimonies?

8 A. Yes, it's the National Reliability and  
9 Interoperability Council, I think, that was  
10 established by the FCC. I don't know the exact date  
11 that it was established. But in the FCC's Line  
12 Sharing Order the FCC explicitly rechartered the NRIC  
13 to look at interference issues related to DSL.

14 Q. Can we at least agree that it's an open  
15 issue in the industry as to whether or not the field  
16 placement of DSLAMs like in Project Pronto might have  
17 an impact on installed DSL services that use homerun  
18 copper?

19 A. I would suspect not only that but also  
20 CLEC remotely installed DSLAMs which many CLECs have  
21 apparently got some degree of interest in or they  
22 would not have insisted that SBC provide space for

1       them to do such remote location of DSLAMs out at RTs.

2               Q. Well, all right, isn't it a fact that the  
3       way DSLAM technology works or DSL technology, I should  
4       say, is that you have to put the DSLAM at each end of  
5       the copper, wherever those two ends happen to be;  
6       isn't that right?

7               A. Well, you put a DSLAM at one end and a  
8       modem at the other end.

9               Q. Fair enough. Can you, for example, in a  
10      Pronto architecture, could Rhythms say I have got some  
11      DSLAMs installed in the CO right now; I think I will  
12      use those in a Pronto architecture somehow going  
13      across the fiber to provide DSL services? That  
14      wouldn't work; would it?

15              A. I know of no way to make that work.

16              Q. So you have got to put the the DSLAM  
17      functionality at the central office for homerun copper  
18      or out at the RT for fiber-fed DLC; right?

19              A. Or remotely located DSLAMs that are just  
20      fiber-fed on their own, standalone DSLAMs that CLECs  
21      can use to connect to the copper subloops to reach  
22      those customers.



1           Q. But you are agreeing with my first two, I  
2 take it?

3           A. The first two that you named --

4           Q. I'm sorry. You are agreeing with my  
5 first two and adding a third option; is that what you  
6 are saying?

7           A. I am saying there is three different  
8 scenarios where you have DSLAM functionality in the  
9 network.

10          Q. Okay. Now, with respect to line sharing,  
11 am I correct that you would have to have loops on  
12 which the copper portion of them is below 18,000  
13 kilofeet -- I'm sorry, below 18,000 feet or  
14 thereabouts?

15          A. I understand you can go farther than  
16 18,000 with line shared G.Lite, although I don't  
17 recall the exact distance limitation in that service.

18          Q. Let's just talk about regular old ADSL  
19 for the start, okay?

20          A. With regular ADSL it's generally accepted  
21 that the length limit for a copper is about 18,000  
22 feet.

1           Q. Okay. And that's because above that it's  
2 Ameritech Illinois' policy to place load coils on  
3 longer loops to support the voice service, POTS voice  
4 service; is that right?

5           A. Well, that would be one reason why you  
6 would not try to work ADSL past that length. But if  
7 you had unloaded pairs past 18,000 feet, I understand  
8 there are some carriers that provide ADSL over copper  
9 past 18,000 feet. It's unloaded 18,000.

10          Q. We are talking about line sharing?

11          A. Oh, I'm sorry. With line sharing, yes,  
12 that would be correct.

13          Q. So, basically, on all copper you have got  
14 up to 18,000 feet because beyond that you load and  
15 that breaks ADSL, so you can't lineshare, right?

16          A. That's a pretty accurate representation.

17          Q. Now, Pronto is going to be deployed so  
18 that the copper segment of that loop is no longer  
19 18,000 feet; is that right?

20          A. That's the objective.

21          Q. But that doesn't mean that the whole  
22 length from the premises to the CO is 12,000 or less

1 if you use the copper piece; isn't it?

2 A. I'm sorry. The copper piece is less than  
3 12,000; is that what you asked?

4 Q. It doesn't mean the whole loop is less  
5 than 12,000; it just means the copper piece is less  
6 than 12?

7 A. Thousand.

8 Q. So you could have a distribution area to  
9 homes which are, say, 30,000 feet from the central  
10 office, deploy a new Project Pronto RTt that was  
11 20,000 feet out from the central office, and have the  
12 longest loop, longest copper portion of the loop, be  
13 10,000 feet; right?

14 A. If all those homes are served out of that  
15 20,000 foot RT, that's correct.

16 Q. Okay. And that kind of example would  
17 bring line sharing to an area that couldn't have been  
18 served before via line sharing; isn't that right?

19 A. It would bring the ability to achieve the  
20 same functional result as line sharing to those homes  
21 that could not be line shared before.

22 Q. Again, from the customer perspective you

1     have got a bunch of customers out there who now you  
2     can tell them now you can get DSL service on the same  
3     line that your voice service is on, right? That's  
4     what you can tell them?

5             A. You can tell them that they can have  
6     that, but there is two different ways that you can  
7     give that to them. One is through the Project Pronto  
8     RT that's sitting out there at 20,000 feet, or an  
9     alternative the CLEC might want to use is its own  
10    remote located standalone DSLAM out there at 25 feet.

11            Q. This is the customer. They don't care  
12    about RTs and collocation and DSLAMs. All they care  
13    about is now I can get DSL service on the same line as  
14    my POTS service.

15            A. That's what they care about, but I was  
16    expressing it from you as the data provider's point of  
17    view.

18            Q. So now let's take that perspective for a  
19    second. Do I have the choice as a data provider with  
20    that customer who is 30,000 feet out to use a homerun  
21    copper loop to lineshare?

22            A. No, and you would not have that choice

1       even absent Pronto as well.

2               Q.   So if I can't get Project Pronto as  
3       UNEs -- this may surprise you, but we are still asking  
4       for that in this case as we have elsewhere -- if I  
5       can't get it as a UNE but only as a broadband service,  
6       it does have an impact on my ability to provide line  
7       shared services using UNEs, doesn't it, in my example  
8       of the 30,000 foot customer?

9               A.   No, you can still use the copper subloop  
10       beyond the remotely located DSLAM functionality, your  
11       remotely located DSLAM functionality on an unbundled  
12       basis.

13              Q.   If I want to put a DSLAM at each RT.

14              A.   That's right.   And that's exactly what  
15       was contemplated in the FCC Line Sharing Order when  
16       you had line sharing present.

17              Q.   We will get to that.   Isn't it correct  
18       that when Project Pronto was conceived, planned, and  
19       initially rolled out, that the Company at those points  
20       contemplated offering that new network topology as  
21       UNEs as opposed to a wholesale broadband service?

22              A.   I don't know as it was contemplated as

1 service versus UNE when Project Pronto was first  
2 contemplated. Your question went that far back in  
3 time. I can personally testify to the fact that in  
4 the spring of 2000 SBC had incorrectly regarded the  
5 Pronto architecture as being unbundled network  
6 elements.

7 Q. Okay. And now the scales have fallen  
8 from SBC's eyes and have been perceived correctly as a  
9 wholesale broadband service; is that right?

10 A. Because of unbundling rules related to  
11 packet switching and other issues, yes, sir, that's  
12 correct.

13 Q. I need to understand exactly what one of  
14 your claims appears to me to be, and that's that you  
15 seem to be saying that because Project Pronto is a  
16 so-called voluntary roll out by Ameritech, that that  
17 has some connection with whether or not you unbundle  
18 that or not. Am I hearing you correctly in your  
19 testimony? Is there a connection in your mind?

20 A. Can you point me to where?

21 Q. Well, I could, but don't you make that  
22 connection in your various testimonies here that --

1       don't you stress that this is a so-called voluntary  
2       offering?

3               A. I guess -- not to split hairs, but I  
4       guess the voluntary nature of that offering might be  
5       something that would be more appropriately addressed  
6       by Ms. Chapman. But I can vouch for the fact that,  
7       yes, SBC did voluntarily decide, choose, to invest in  
8       this new network architecture. It's not the existing  
9       network that's been out there, you know, up until the  
10      end of '99 or early 2000.

11             Q. Well, isn't this the first time that SBC  
12      has taken the position that it shouldn't have to  
13      unbundled a portion of its network and offer it as  
14      UNEs?

15             A. I don't know whether it's the first time  
16      or not, but it is certainly a time when we have taken  
17      that position because it's packet switching equipment  
18      and the FCC gave us what we believe to be very clear  
19      rules about what our unbundling obligations are with  
20      packet switching equipment.

21             Q. Well, can you think of, sitting here  
22      today, any other time when Ameritech or SBC has

1 refused to unbundle a portion of its network, existing  
2 network?

3 MR. BINNIG: I will object that it calls for  
4 a legal conclusion. He can testify to what he knows,  
5 but what Ameritech has objected to in terms of  
6 unbundling is a matter of public record in its various  
7 filings with the FCC, with the Eighth Circuit, with  
8 the U.S. Supreme Court.

9 EXAMINER WOODS: I am not sure what the  
10 relevance is.

11 MR. BOWEN: Okay. I will withdraw it.

12 Q. Isn't it correct, Mr. Lube, that SBC's  
13 network, in particular the network in Illinois, has  
14 never been static in terms of technology?

15 A. Not having been personally familiar with  
16 the Illinois network for very long, if it's anything  
17 like the states I am familiar with, it's probably not  
18 been static.

19 Q. Okay. Well, let's assume that it is like  
20 the states you are familiar with. I take it that's  
21 the SWBT states?

22 A. I am mostly familiar with the SWBT



1 states, yes, sir, that's correct.

2 Q. Let's assume that the same thing that has  
3 happened across the year there happened here, just for  
4 discussion purposes. Isn't it correct that originally  
5 the network was all copper, loop network was all  
6 copper?

7 A. Yes.

8 Q. And didn't SWBT introduce at some point  
9 pair gain systems for all copper that rode on all  
10 copper?

11 A. That's correct.

12 Q. And didn't it introduce fiber-fed DLC  
13 systems?

14 A. That's also correct.

15 Q. Starting with universal DLC?

16 A. Yes, sir.

17 Q. Moving to integrated DLC?

18 A. That's also correct.

19 Q. And currently deploying next generation  
20 DLC?

21 A. With respect to the Pronto deployment,  
22 yes, that's correct.

1           Q. Well, hasn't SBC deployed NGDLC equipment  
2 prior to Pronto that was not so-called Pronto capable?

3           A. No, sir.

4           Q. Nowhere in the 13 states has SBC deployed  
5 any NGDLC; is that your testimony?

6           A. I will put it this way. We didn't regard  
7 it as NGDLC. Now, maybe by some other definition -- I  
8 will put it this way. We had fiber-fed in certain  
9 states prior to Project Pronto. We had fiber-fed DLC  
10 made by other manufacturers, not the manufacturers  
11 that have been deployed with Project Pronto. And  
12 these systems, some of them, I believe, have some  
13 GR-303 capabilities, but we have never deployed all  
14 the whistles and buzzers and bells and extra fancy  
15 things that are included in the 303 specification. I  
16 guess in my opinion that we never really regarded that  
17 as NGDLC, not until Project Pronto came along. You  
18 are getting into a semantics issue, perhaps.

19           Q. Hasn't Pacific Bell deployed Litespan  
20 2000 using GR-303 for a number of years?

21           A. Yes.

22           Q. Isn't that a SBC state?

1           A. I'm sorry, I thought you said SWBT.

2           Q. My question was actually 13 states,  
3     Mr. Lube.

4           A. I don't recall your question being that,  
5     but if it were, then I would agree with you. In the  
6     SBC 13 states, yes, that would be true. But we were  
7     talking about my experience in the SWBT states.

8           Q. Wouldn't it be fair to say that in the  
9     sense that you use the term "voluntary," that each of  
10    those network loop upgrades we have just gone through  
11    was voluntary on the part of SBC?

12          A. Yes, sir, I think that would be fair, but  
13    nothing to the extent -- we had never done anything to  
14    the extent technology-wise that we are doing with  
15    Project Pronto.

16          Q. Well, voluntary in the sense that nobody  
17    made you do it, no regulatory body, no lawsuit, no  
18    outside force made you change your loop plant from all  
19    copper to DLC and then fiber-fed DLC; isn't that  
20    correct?

21          A. Certainly to the best of my knowledge  
22    that would be correct.

1           Q. And isn't it true that with respect to  
2 everything prior to Pronto, you have complied with FCC  
3 requirements to unbundle and offer as UNEs those  
4 earlier loop network architectures?

5           A. Since passage of the Telecom Act or the  
6 FCC's implementing orders, yes, that's correct, but  
7 those types of technologies that you are talking about  
8 were not packet switching.

9           Q. You are not aware of anything in any FCC  
10 order that relies on the voluntariness of a network  
11 upgrade as a basis for not unbundling; are you?

12          A. This is something that's probably really  
13 more correctly addressed by Ms. Chapman, but to my  
14 knowledge unbundling obligations relate to the  
15 existing network. To the extent that that would have  
16 some impact on a voluntary deployment like Pronto, you  
17 know, perhaps that would be the connection.

18          Q. Okay. Well, once you deploy Pronto, it's  
19 existing; isn't it? Once you finish the deployment,  
20 it's an existing network?

21          A. At a later snapshot in time, yes, sir.

22          Q. As soon as you put a new RT in and turn

1       it up, that's an existing network component; isn't it?

2               A. I would agree, yes.

3               Q. As soon as you put in the OCD in the  
4       central office to support those RTs, those are  
5       existing OCDs; aren't they?

6               A. Yes, that's correct.

7               Q. Okay. Let's turn to page 10 of your  
8       direct, please. You were here when Mr. Keown was  
9       here. Let me just ask you to see if you agree with  
10      what he said. I want to relate now different kinds of  
11      DLCs with a different switch interface specification,  
12      again. This is the GR-303, TR-008, TR-57 discussion.  
13      You heard that; didn't you?

14              A. Yes, I did.

15              Q. Would you agree with Mr. Keown that UDLC  
16      or universal DLC was the first deployed DLC  
17      technology?

18              A. Yes.

19              Q. And that the switch interface  
20      specifications that supported that was which one?

21              A. TR-57, actually TR-057.

22              Q. Okay. And that was followed by

1 integrated digital loop carrier; is that right?

2 A. That's correct.

3 Q. And what switch interface spec was  
4 developed to support that DLC technology?

5 A. TR-008.

6 Q. One of the differences between those two,  
7 if I am correct, is that at the central office they  
8 hand off to the switch in an IDLC configuration occurs  
9 at a T1 level, 1.544 megawatts per second interface,  
10 as opposed to a voice grade interface; is that  
11 correct?

12 A. Yes, sir, that's correct.

13 Q. Now, an NGDLC, what's the switch  
14 interface spec that supports that?

15 A. GR-303.

16 Q. Okay. Now, do you also agree with  
17 Mr. Keown that for an NGDLC deployed system, that any  
18 two of those three interface specs can be deployed on  
19 each system? That is, you could choose GR-303 and  
20 TR-008 or GR-303 and TR-057, for example?

21 A. I am not sure what Mr. Keown testified  
22 with respect to that specific question. I may have

1       been out of the room at the time. I actually thought  
2       you could deploy all three interface specifications on  
3       a particular system.

4               Q. Okay. I will take that answer. It's  
5       even better. Thank you.

6               A. Mr. Keown may be right, but that's based  
7       on my prior knowledge.

8               Q. Well, then you will agree it's at least  
9       two, if not three?

10              A. That's fair.

11              Q. On page 10 you have a sentence that says  
12       -- you are talking about the existing NGDLC technology  
13       here, are you not, lines 13 through 19 on page 10?

14              A. I'm sorry. You said existing NGDLC?

15              Q. Yeah.

16              A. I am talking about existing older DLC; is  
17       that what you are referring to?

18              Q. Older DLC, right. You say the previously  
19       deployed types of DLC, including those that are  
20       fiber-fed, do not have this band width capability and,  
21       therefore, cannot be used for DSL services. That's  
22       not factually correct; is it, Mr. Lube?

1           A. It's correct for most DSL services. The  
2 type of DSL service that you can deploy -- I'm sorry,  
3 that you can provision over older types of DLC is  
4 IDSL.

5           Q. Fair enough, that was my question. All  
6 right. Now, have you ever heard the term OCD used  
7 prior to SBC's use of that term?

8           A. I had not, no, sir.

9           Q. Didn't SBC coin that term?

10          A. I don't know that one way or the other.

11          Q. Do you know why SBC calls an ATM switch  
12 an OCD instead of just calling it an ATM?

13          A. My understanding was, when I first heard  
14 that terminology, was that we were using an ATM switch  
15 product from the manufacturer but not using all the  
16 capabilities of that switch. We were using it just to  
17 concentrate and to route or, in other words, to  
18 aggregate and to route ATM cells from one destination  
19 to another, in other words, from an incoming side to  
20 an outgoing side. So that was my understanding when I  
21 first heard that terminology.

22          Q. Do you mean by that that normally an ATM



1 switch would be hooked into the so-called ATM cloud  
2 into other switches, and this one was not?

3 A. Technically, the OCD is an edge switch on  
4 an ATM cloud. So I guess I would say no to your last  
5 question. That would not have been the reason that we  
6 didn't think of it as a full ATM switch.

7 Q. But in fact it is not hooked to any kind  
8 of switch configuration into an ATM cloud; isn't that  
9 right? It stands alone?

10 A. It is an entry/exit node off of any  
11 number of ATM clouds. If there is ten CLECs that  
12 connect their ATM clouds to ports on the OCD, then  
13 what I was saying a second ago is, technically that  
14 makes the OCD behave as an ATM edge switch.

15 Q. Okay. But it's not part of an SBC ATM  
16 cloud; isn't that fair?

17 A. Oh, yes, sir, that's correct. I'm sorry,  
18 I did not realize you meant SBC cloud.

19 Q. That's because you can't do that; right?

20 A. Under the merger agreement I understand  
21 we cannot do that.

22 Q. And just so we are clear, I don't want to

1       talk about this in detail because I will agree with  
2       you that some of these are not the topic of line  
3       sharing, but the Project Pronto NGDLC, would you agree  
4       with Mr. Keown, that Alcatel can support IDSL, HDSL  
5       four-wire, ADSL, and at some point in the future will  
6       be able to support HDSL2 and SHDSL technology?

7               A. And Glite, and one other change to the  
8       list that you provided, the four-wire HDSL that's  
9       available today, that is on the TDM side of the Pronto  
10      architecture, not on the DSL ATM side of the Pronto  
11      architecture.

12             Q. Thanks for that clarification. Now, a  
13      number of points in your testimony, one of which is on  
14      page 14 at line 6, you talk about the wholesale  
15      broadband service, to use your term, functionally  
16      achieving the same results as line sharing. Do you  
17      recall that testimony?

18             A. Yes, sir.

19             Q. What do you mean by functionally  
20      achieving the same result?

21             A. It's very simple. What we are trying to  
22      say is if a CLEC wants to provide DSL service to an

1 end user and that end user is also receiving POTS from  
2 Ameritech Illinois, that can occur -- in other words,  
3 that combination of service provisioning by those two  
4 carriers can occur over the Project Pronto-based  
5 broadband service. It's -- as you know, I have  
6 testified extensively we don't consider that line  
7 sharing all the way from the central office to the end  
8 user customer because only part of that path is  
9 copper. But you achieve the same functional result as  
10 that FCC mandated line sharing.

11 Q. And the functional result, at least in  
12 part, is that the customer realizes that they can get  
13 their data service on the same loop that they get  
14 their voice service; right?

15 A. Yes, sir, exactly.

16 Q. Now, you will agree, I hope with me, that  
17 line sharing is a UNE?

18 A. Line sharing on copper, as defined by the  
19 FCC, is a UNE. It's called the HFPL or high frequency  
20 portion of the loop.

21 Q. Okay. On page 15, we have touched on  
22 this before, but this is where you talk about the

1 service formerly known as line sharing, the renaming  
2 of this wholesale broadband service, is that correct,  
3 lines 4 through 20?

4 A. Yes, sir, that 's correct.

5 Q. As part of this renaming, I take it that  
6 you will agree that there were no physical changes in  
7 the name?

8 A. No, sir. In fact, the new name is  
9 actually more appropriate -- I shouldn't say more  
10 appropriate but I should say a more descriptive,  
11 physical kind of name. It actually explains fully  
12 that the line sharing is occurring over the subloop,  
13 the copper subloop.

14 Q. Okay. And you have a citation to one of  
15 the accessible letters we have discussed in previous  
16 discussions we have had in Footnote 16; do you not?  
17 That's Accessible Letter CLEC AM 00 -044?

18 A. Yes, sir, that's the accessible letter  
19 that originally came out with the old name.

20 Q. So maybe Shakespeare was right; what's in  
21 a name? It can become important?

22 Let's turn over to page 17 of your

1 direct. Here you are -- actually, this answer starts  
2 on page 16, and you are describing how your wholesale  
3 broadband service provides this functional equivalent  
4 to line sharing; right?

5 A. Yes, sir, that's correct.

6 Q. And will you agree with Mr. Keown that on  
7 an ADLU card that the actual splitting occurs on the  
8 card?

9 A. Yes, it does. Or yes, I do, I'm sorry.

10 Q. Pardon me?

11 A. Or I said, yes, I do agree with you or  
12 with Mr. Keown, excuse me.

13 Q. And do you agree that the DSLAMing  
14 function is on the card also but it requires the  
15 operating system load of 10.1 or above to make that  
16 work?

17 A. That's part of it. In my view it also  
18 requires a multiplexing functionality shown, or not  
19 shown, but contained on the ABCU card that's part of  
20 that system.

21 Q. Fair enough. Okay. On page 18, and you  
22 deal with this in your surrebuttal as well, you have

1 the statement, let me read a phrase of it, on line 14  
2 through 16 us "but also the voice and data signals  
3 generally do not share the same fibers." Your use of  
4 the word "generally" there, I think you mean to say  
5 that they can but the way you configure Pronto, they  
6 usually don't; is that right?

7 A. No, sir, that's not what I mean.

8 Q. What do you mean by "generally"?

9 A. "Generally" there means, as we have  
10 deployed Project Pronto, it normally does not. But in  
11 certain deployment areas, in certain remote terminal  
12 sites, we have what you and I talked about in the 393  
13 docket which was the Litespan 2012 and the AMC -- I'm  
14 sorry, the AFC UMC 1000 system.

15 Q. Right. And on those systems they do  
16 share the same; right?

17 A. The voice data signals?

18 Q. Yes.

19 A. Yes, they travel in the same optical  
20 signal, yes.

21 Q. Now, I hope we can clarify one issue  
22 between us here. You spent a lot of time saying, "You

1       can't make me put voice and data on the same fibers  
2       for all these reasons," right, in your testimony?

3               A. Yes, sir, I do.

4               Q. You don't actually believe that Rhythms  
5       is suggesting you be forced to do that; do you?

6               A. Your client's witness made all kinds of  
7       suggestions in his testimony, Mr. Riolo, that we could  
8       have, and it appeared to me he was saying, we even  
9       should have done so because that technology is  
10      available. So it's my contention that you should not  
11      be able to dictate that I do that, especially when  
12      it's uneconomical to do that and, furthermore, I say  
13      it doesn't matter. In fact, in my surrebuttal  
14      testimony I ask a question what's the fuss over  
15      whether it's on separate fibers or the same fibers,  
16      because the FCC didn't define line sharing on fiber  
17      anyway.

18              Q. I read all that. We will probably get to  
19      that too. But what I want to establish here is, isn't  
20      it correct that the Rhythms' testimony of Mr. Riolo  
21      and whoever else has testified and my cross of you in  
22      previous cases really is triggered by your claim that,

1     because voice and data travel on separate fibers, it  
2     can't be line sharing because that requires the same  
3     physical facility? Wasn't that the genesis of that  
4     whole response, Mr. Lube?

5             A. It should not have been the genesis of  
6     it. That response was inappropriate for what my  
7     direct testimony was. My direct testimony very  
8     carefully says that it does not matter whether it's on  
9     one fiber or two. But to the extent that someone  
10    wants to talk about what I would call fiber sharing,  
11    in other words, voice and data on the same fibers,  
12    here is how it works. I know that's been of interest  
13    to you and others in other cases we have been in, so I  
14    laid all that out in my direct testimony. But that's  
15    not the reason that we are saying that it should or  
16    should not be line sharing.

17            Again, I have made it very plain in my  
18    direct testimony itself and further made it plainer, I  
19    hope, in my rebuttal and my surrebuttal that it does  
20    not matter whether it's on one fiber or two. We  
21    choose one fiber or two, or I should say, one set of  
22    transit/receive fibers versus two sets of



1 transit/receive fibers based on what's economic to  
2 deploy, not on whether it would meet someone else's  
3 definition of line sharing.

4 Q. In fact, isn't the fact that under your  
5 prime configuration that is a separate ATM fiber and a  
6 separate TDM fiber, isn't that one of the reasons you  
7 put forward in the past as to why, one of the many  
8 reasons, as to why even if everything else were  
9 satisfied that you couldn't call this line sharing,  
10 because they don't ride the same physical facility?  
11 Haven't you said that in the past?

12 A. We have said that but, again, we have  
13 said at the same time that it doesn't matter.

14 Q. Well, if the FCC in full awareness of  
15 Pronto and all the implications of that decides that  
16 the important consideration about line sharing is the  
17 customer with the wires coming into their house gets  
18 two services instead of one and it doesn't matter how  
19 those signals get back to the central office, then  
20 would it matter to you whether it rides on the same  
21 fiber or not?

22 A. Actually, I guess I was thinking the FCC

1     had already done what you just said, you know, that  
2     from the customer's perspective if they have got voice  
3     and data coming into their home on the same pair, then  
4     that's line sharing. But from a carrier point of  
5     view -- in other words, the FCC looked at it from the  
6     end user customer's point of view and the carrier's  
7     point of view. From the carrier point of view, it  
8     matters whether it is on copper versus fiber, but not  
9     whether it's on one set of fibers versus two sets of  
10    fibers on the fiber part.

11           Q. I don't want you to testify -- please, we  
12    know what your testimony is on the Line Sharing Order  
13    before the FCC was aware of Pronto. I want you to  
14    assume that the FCC says Pronto counts as line  
15    sharing. Would that change your testimony in any way  
16    about one versus two fiber systems?

17           MR. BINNIG: I am going to object to the  
18    characterization of what the FCC knew or didn't know  
19    at the time that it issued its Line Sharing Order.  
20    And I am also going to at this point object to the  
21    relevance of the question any more.

22           EXAMINER WOODS: Frankly, the question I

1       heard I think was a tautology, anyway.

2               MR. BOWEN: I do that occasionally, Your  
3       Honor.

4               EXAMINER WOODS: Because if the question is  
5       if the FCC says Project Pronto is line sharing, I  
6       think that assumes that it's over two fibers.

7               MR. BOWEN: It might or might not, actually.

8               EXAMINER WOODS: Well, as I understand  
9       Project Pronto, voice is carried on one fiber, data is  
10      on another fiber, two fibers. And if the FCC says  
11      that that's line sharing, then implicit in that  
12      question is that that makes it subject to the Line  
13      Sharing Order. Isn't that implicit?

14              MR. BOWEN: No. The only problem with that  
15      is you can, as Mr. Lube just said in his written  
16      testimony and again today, it's possible to configure  
17      the facilities so that both voice and data ride on a  
18      single set of fibers or, conversely, on two separate  
19      sets of fibers. Either one is possible.

20              EXAMINER WOODS: Right. So I guess the real  
21      question is, then is the SBC going to reconfigure  
22      Project Pronto to make it ride on one wire which would

1 take it right back into line sharing because it's on  
2 one wire. That's why I think it's a tautology. I  
3 think if the FCC ever says, yes, in fact riding two  
4 wires is in fact line sharing, then that answers all  
5 the questions about one or two transmission packets.

6 MR. BOWEN: I will agree, if the FCC ever  
7 said I don't care if you use one set of wires or two,  
8 it's still line sharing, that would answer -- that  
9 would dispose of this issue, I would hope, with  
10 finality, but we aren't there yet. I will ask a  
11 different question. I will move on.

12 EXAMINER WOODS: Thanks.

13 Q. Okay. Mr. Lube, maybe we can do it this  
14 way. If I just tell you out right that Rhythms  
15 doesn't want to force you to deploy a single set of  
16 fibers versus two, that you can do it whatever way  
17 makes the most economic sense, and that the only  
18 reason that Rhythms was raising that point was to  
19 rebut your point about separate fibers means not line  
20 sharing, does that resolve your concerns that we are  
21 trying to force you to deploy something you don't want  
22 to deploy?

1           A. That would go a long way, if not  
2 completely resolve the issue, at least that particular  
3 flavor of the issue.

4           Q. That's all we are talking about. I just  
5 want to see if that would do it for you. All right.  
6 Now, will you agree with me that in terms of how you  
7 decide to configure systems, you are going to try and  
8 do that in the most economic way, given what you  
9 perceive the demand to be for the services that are  
10 going to flow across those facilities?

11          A. Yes, I think that's a correct  
12 characterization.

13          Q. So, for example, before the availability  
14 of DSL over fiber-fed DLC, you probably wouldn't have  
15 thought about deploying Litespan 2012 very often just  
16 for Nx64 base or voice type service; would you?

17          A. Actually, our reasons for deploying a  
18 2012 prior to Project Pronto would probably be pretty  
19 much the same as our reasons for deploying a 2012  
20 after the deployment of Pronto. And as I explained in  
21 my direct testimony, the reason that we would deploy a  
22 2012 is because we have the additional capacity or we

1     have the capacity of additional OC-3s. If we have a  
2     demand out there in the loop area for that additional  
3     high band width, then the 2012 is one vehicle that we  
4     can use to satisfy that need. It's not the only one,  
5     by the way. If we have other types of customers out  
6     there that want their own OC-3 optical loops or there  
7     is optical services over a loop, we can provide a  
8     standalone multiplexer out there and also achieve the  
9     same type of functionality.

10           Q. Well, why don't we talk about the average  
11     target deployment for Pronto itself. That's  
12     residential and small business; isn't it?

13           A. That would be one of the main targets,  
14     probably the main target.

15           Q. Okay. Now, Litespan 2000 can support how  
16     many regular old voice lines, forget the data  
17     altogether?

18           A. I guess it depends on how many channel  
19     banks you have out there.

20           Q. Nine channel banks, 56 cards, four  
21     appearances to a card, how many is that?

22           A. If you are talking about -- I am trying

1 to do the math because it's the number of customers  
2 per card that also matters.

3 Q. You can get four POTS customers per card  
4 right now; right?

5 A. Yes, you can.

6 Q. So what's that math work out to?

7 A. Well, it would be 9 times 56 times 4,  
8 whatever that is. I guess that's -- let's see, 6  
9 times 56 times 4 is 2016, I think. So it would be  
10 2016 plus 672, so I guess it would be like 26 -- my  
11 math isn't working in my mind right now. I guess I  
12 could do it on paper.

13 EXAMINER WOODS: Do you have a suggestion,  
14 Mr. Bowen?

15 Q. I would suggest 2016 is the answer, but  
16 that would blow your math. Does that sound right,  
17 Mr. Lube?

18 A. Yes, that is right. I'm sorry. I was  
19 thinking something different.

20 Q. Isn't that why it's called the Litespan  
21 2000, because it can serve about two thousand lines?

22 A. Yes, sir, that's correct, except it can

1       be put in in smaller configurations but I assume you  
2       are talking about the maximum size.

3               Q.   Now, if you have 2016 POTS customers, can  
4       you tell me how much band width that requires on the  
5       fiber transport basis back to the office roughly?  
6       Does it require a DS-3, does it require a DSM-3?  
7       Again, this is POTS only.

8               A.   I have actually not done the math. I  
9       guess if I was to do the math, and if someone has a  
10      calculator, they can perhaps help me. But if you have  
11      24 times 16 kilobytes, if I did the math correctly,  
12      you would need an OC-3 to carry that.

13              Q.   You would get about 130 megabytes and the  
14      OC-3 is 155; right?

15              A.   Yes, sir, that's correct.

16              Q.   So one OC-3, if it was just POTS service,  
17      could support a completely configured Litespan 2000;  
18      right?

19              A.   Yes, sir, that's correct.

20              Q.   Okay. And if you wanted to -- well,  
21      strike that. So if you are looking just at voice  
22      services, you would normally -- and you wanted to



1       deploy a fiber-fed DLC, you would deploy a Litespan  
2       2000 with TDM only driving an OC-3; right?

3               A. Yes, sir.

4               Q. Because that would satisfy all the band  
5       width needs of just voice; right?

6               A. Well, if that's all you had to serve in  
7       that area, and I think that was your hypothetical.

8               Q. It is.

9               A. Yes. No other wide band requirements or  
10      anything like that.

11              Q. That's correct.

12              A. Yes.

13              Q. Now, if you wanted to deploy data  
14      services with that, in particular ADSL services,  
15      that's when you get into the separate OC-3c fiber,  
16      right, using ATM?

17              A. Yes, that's correct.

18              Q. And that again is a 155 megabit bit  
19      stream that's concatenated, as Mr. Keown said?

20              A. That's correct.

21              Q. And how many DSL circuits would that  
22      yield? I know you are going to need to know what kind

1 of quality service class I want you to assume. Assume  
2 UBR. How many UBRs can you get out of that?

3 A. I don't know the amount of individual  
4 ADSLs with UBR. It's probably a fairly high number.  
5 I am trying to think, it might be like --

6 Q. It's over a thousand; right?

7 A. It's over a thousand. You can get a  
8 thousand on ADSL-3, so it's well over a thousand.

9 Q. But the constraining factor there, in  
10 fact, would be the 672 number that is a result of a  
11 three channel bank limit times 56 cards times the  
12 number of appearances per card; right?

13 A. Assume a four-port card, that's right.  
14 That's the 672.

15 Q. And if it's two ports, it's half of 672;  
16 right?

17 A. Right.

18 Q. So the constraining factor there,  
19 therefore, is not the band width for UBR; it's the  
20 number of appearances in that DLC that Alcatel can  
21 support right now; right?

22 A. For that class or quality of service

1 class for UBR, that's correct.

2 Q. Now, how many CBRs can you get out of an  
3 OC-3c?

4 A. How large are the CBRs?

5 Q. Well, make an assumption and then you can  
6 answer it. They can come in different sizes; right?

7 A. Well, if you have a one bank CBR, then  
8 you have got a limit of about 155.

9 Q. And what if you had like a 500k CBR?

10 A. Then it would be twice that.

11 Q. All right. So the number of CBRs you can  
12 derive from that band width is a function of how big  
13 each CBR is; is that right?

14 A. Well, yes, sir, because it's a constant  
15 bit rate.

16 Q. What about DVRs?

17 A. I don't know how many DVRs you can do.

18 Q. But is it fair to say that in general  
19 CBRs of any reasonable size or DVRs will take more  
20 band width than a UBR will?

21 A. I think that's a good generalization.

22 Q. And isn't that part of the basis for

1       yours and Mr. Keown's assertions that you need to  
2       worry about or be concerned about band width  
3       exhaustion if you were asked to provide other quality  
4       of service classes besides UBR?

5               A.   Both band width exhaustion on the OC-3c  
6       and slot exhaustion in the channel banks themselves.

7               Q.   Now, you have testified and we have  
8       talked before -- I am not going to go over this -- but  
9       you will agree with me that there are a number of ways  
10      to increase the throughput capacity for DSL that are  
11      included in your testimony, including undaisy chaining  
12      the three channel bank assemblies and having separate  
13      fibers out of each, including if fiber is constrained,  
14      weight division and multiplexing and so forth; right?

15              A.   I am aware of those options, yes.

16              Q.   Are you aware of any work being done by  
17      Alcatel to improve the number of DSL circuits that can  
18      be handled within an NGDLC above the 672 limit? In  
19      particular, are you aware of any work being done by  
20      Alcatel to enable more than three channel bank  
21      assemblies to support DSL?

22              A.   I am not personally aware of that. I

1 think it would be good for them to look at that, if  
2 they are not. We are basically talking power  
3 requirements and heat dissipation requirements , more  
4 than anything else. And then, of course, if you get  
5 into different quality of service classes, then you  
6 get into more of the issue of the daisy chain or the  
7 not daisy chaining of the DSL channel banks.

8 Q. Okay. Well, would you expect that  
9 overtime Alcatel will improve its ability to support a  
10 larger number of DSL appearances per NGDLC?

11 A. I can't predict that. I hope they do,  
12 but I can't predict that.

13 Q. When you say it's not economical to  
14 deploy Litespan 2012, do you mean -- you must mean  
15 given some demand assumption when you say that.  
16 Because under some demand assumptions, it has to be  
17 economical to deploy 2012; isn't it?

18 A. In fact, that's exactly the intended  
19 point of my testimony, is where it's economic to do  
20 so, we will use a 2012. Where it's not, we won't.

21 Q. Now, you agree with Mr. Keown -- strike  
22 that. I'm not sure he had a chance to answer that

1 question. Are you aware of whether or not SBC is  
2 currently in technical trials with voice-over DSL  
3 equipment?

4 A. I am actually just conversationally aware  
5 of the fact that we are not in technical trials, but  
6 that we do have that kind of hardware in our labs.

7 Q. I should have said in the labs. But it  
8 is in the labs?

9 A. Yes.

10 Q. And were you at the Dallas Project Pronto  
11 CLEC meeting?

12 A. No. Actually, I was in Springfield,  
13 Illinois, testifying.

14 Q. Okay. Have you seen the handouts from  
15 that CLEC meeting at Dallas?

16 A. No, I still haven't seen those.

17 Q. You still haven't seen them. Well, isn't  
18 it correct that the Company is evaluating and hopes to  
19 be able to deploy voice-over DSL on the Pronto  
20 architecture if the technology proves in?

21 A. Again, just from my personal opinion, if  
22 the technology proves in in the labs and field trials

1     prove it to be effective, then I would hope that we do  
2     offer that.

3             Q. I don't want your personal opinion. If  
4     you know, I want to know what the Company plans.

5             A. I don't want to seem trite, but I don't  
6     think we would be looking at it in our labs if we  
7     didn't think there was some merit to trying to deploy  
8     that. So I would have to say, yeah, the Company is  
9     looking to deploy that if it proves to be a good  
10    technology or an effective technology.

11            Q. But it would be more efficient from a  
12    network perspective for you to be able to provide  
13    voice service over DSL as opposed to analog POTS  
14    service over copper facilities?

15            A. Is your question regarding both going  
16    through the NGDLC or the voice going -- I'm sorry, can  
17    you rephrase your question? Are you asking about  
18    voice-over DSL versus line sharing?

19            Q. I am asking about, if you are going to be  
20    a voice provider, isn't it the Company's plan and  
21    consideration to move voice -- over to voice-over DSL  
22    as opposed to just regular old analog POTS?

1           A. Again, I think my Company would want to  
2 do that if it proves to be an effective technology.

3           Q. Okay. And that's one of the things you  
4 are evaluating right now in the labs; isn't it?

5           A. That's my understanding.

6           Q. Let me show you a document I will  
7 represent as a handout to CLECs at that Dallas Pronto  
8 collaborative on October 24, 2000, still bound, still  
9 untouched by human hands.

10          A. I see your hands.

11          Q. I am a lawyer. Let me turn you to --  
12 there are four presentations in here. I want to turn  
13 your attention to Mr. Matthew Wallace's presentation;  
14 do you know who he is?

15          A. I do know Matthew Wallace.

16          Q. Do you recognize him as the Matthew  
17 Wallace who is director of new technology and director  
18 of Pronto?

19          A. Yes, I do.

20          Q. At page 8 of his presentation, let me  
21 show you that, this page is entitled "Pronto Future  
22 Platform for the Alcatel Litespan;" is it not?



1 A. Yes, it is.

2 Q. And in the left column there is -- the  
3 header is Litespan 2000 and 2012; right?

4 A. Litespan 2000 and 2012.

5 Q. Right. And there is three phases on that  
6 page; is that right?

7 A. Yes, there are.

8 Q. Do you see where it says phase three?

9 A. Yes, I do.

10 Q. It says 12.0. That's software release  
11 12.0; right?

12 A. Yes, it is.

13 Q. It says 1Q0, that's means first quarter  
14 of the year 2002; right?

15 A. Yes, it would.

16 Q. What's the first bullet say?

17 A. It says VO DSL.

18 Q. Is that voice-over DSL?

19 A. Yes, it is.

20 Q. So that's the plan announced to CLECs.  
21 According to this document voice-over DSL could be  
22 available on the Pronto architecture as of the first

1 quarter of the year 2002; is that right?

2 A. It says that. And I did not hear  
3 Mr. Wallace's presentation, but I would presume that's  
4 not a commitment if the technology turns out to be not  
5 good.

6 Q. But if it proves in, that's the target?

7 A. Yes, sir.

8 MR. BOWEN: Your Honor, I am going to ask  
9 that you will reserve a number for this. I will make  
10 photocopies of this overnight. I only have this one  
11 with me right now. I want to unbind it and get record  
12 copies for Your Honor and for the parties.

13 MR. BINNIG: I would like to see the entire  
14 document. You maybe will want to get the whole thing.

15 MR. BOWEN: I am going to make a copy of the  
16 whole thing. I don't want just a partial page in  
17 there.

18 MR. BINNIG: Thank you. We will have to look  
19 at the document before we can respond.

20 MR. BOWEN: I will move for its admission at  
21 this point, but do you want to assign a number?

22 EXAMINER WOODS: We will wait.

1                   How much, Mr. Bowen?

2                   MR. BOWEN: Pardon me?

3                   EXAMINER WOODS: How much left?

4                   MR. BOWEN: I would say half an hour to 45,  
5 Your Honor.

6                   EXAMINER WOODS: Let's take a break. Ten.

7                                 (Whereupon the hearing was in  
8                                 a short recess.)

9                   EXAMINER WOODS: Back on the record.

10                  BY MR. BOWEN:

11                  Q. Mr. Lube, we were discussing the  
12 different ways that you can satisfy demand for band  
13 width. Am I correct that there are -- that you  
14 could -- SBC could employ a number of different or in  
15 combination of approaches to increase band width  
16 across a fiber system, just in general?

17                  A. Yes, there are different ways that can be  
18 done. There are different costs associated with  
19 different ways but, yes, there are different ways.

20                  Q. And you are always going to -- I take it  
21 from your testimony, you are going to be applying what  
22 is the most cost efficient solution on an RT-by-RT

1 basis; is that right?

2 A. Yes.

3 Q. And those options include, I think you  
4 have already testified, you could use wave visual  
5 multiplexing; right?

6 A. That's a technology that's available that  
7 could be used.

8 Q. I am not saying it's always going to be  
9 economical; that's one of the options; right?

10 A. Actually, there is some issues that are  
11 beyond first costs for even things like WDM or wave  
12 length division multiplexing, things that have to do  
13 with provisioning, and testing, and test access,  
14 issues like that that sometimes make some of these  
15 available technologies not really seem that feasible  
16 to us or attractive to us to use.

17 Q. Fair enough. Another possibility to  
18 increase band width is to deploy additional RTs;  
19 right?

20 A. Yes, you can split an RT. That's a  
21 possibility. It's an expensive possibility but --

22 Q. Right now I think the base configuration

1       would have three to five SAIs per RT; is that right?

2               A. That's a pretty good average.

3               Q. If you have got a lot of demand and  
4       everything else was pretty much constrained, you  
5       could, you know, serve -- if you had four altogether,  
6       you could serve two out of one and two out of a new  
7       one; right?

8               A. That's one possibility, yes, sir.

9               Q. In other words, you don't consider the  
10      Project Pronto deployment of RTs to be the kind of  
11      final word on the number of RTs you might deploy in  
12      the future; do you?

13              A. Assuming it's economical for us to  
14      continue to deploy that type of technology at all or  
15      if that technology is still usable down the road,  
16      then, yeah, it's a dynamic picture, I'm sure.

17              Q. So that's another option, you can deploy  
18      another RT. Can you -- right now I think you have  
19      some RTs configured in a daisy chain configuration of  
20      one RT to another; don't you?

21              A. I am not familiar with -- I know that  
22      that's a possibility. I am not familiar with whether

1       we are doing that or not. I don't think we are. I am  
2       just not familiar, I mean.

3               Q. If you were doing that, you could unchain  
4       them and run separate fibers back to the office to  
5       increase throughput; couldn't you?

6               A. Yes. And by the way, some of the  
7       possibilities you are mentioning about undaisy  
8       chaining, different RTs that are connected together,  
9       or different channel banks within the same RT, those  
10      are all things that certainly technologically can be  
11      done, or even splitting your RTs if you run out of  
12      capacity because of higher band widths or whatever.  
13      But a big factor here that we have to look at in our  
14      network is the OCD, and are we going to have to have  
15      multiple OCDs prematurely. If we do, that raises the  
16      cost to provision a service through the architecture.  
17      You also have to have intermachine connections, so to  
18      speak, between the OCDs, like the first OCD to the  
19      second OCD; if you have a third one, the first one to  
20      the third one, the second one to the third one.

21              Q. A little cloud, basically?

22              A. Yeah, a little cloud. But all that is

1       very much a cost factor. So that's all part of the  
2       mix that we have to look at in terms of trying to  
3       build and administer and all that the Pronto network.

4               Q. I am not trying to suggest or diminish  
5       the cost issues associated. I am just trying to  
6       understand what the possibilities are, recognizing  
7       that there are costs of doing that. So I will grant  
8       -- you don't have to say every time but that will cost  
9       something more. I will grant you that. I am just  
10      trying to understand what the possibilities are.

11             A. The reason I brought that up, Mr. Bowen,  
12      is because when we talk about the fibers and how many  
13      fibers we bring back, it is often easy to forget the  
14      fact that that triggers more OCD cost as well.

15             Q. Fair enough. You can -- as you said in  
16      your testimony, you can run separate fiber systems out  
17      of the back of each DSL channel bank; right?

18             A. Or off the front.

19             Q. Off the front, whatever?

20             A. Yes, sir.

21             Q. You can use that 2012 instead of a 2000  
22      to get more OC-3; right?

1           A. You can do that, and that's a fairly  
2 expensive solution to trying to get separate feeds for  
3 each DSL channel.

4           Q. Okay. You agree with Mr. Keown that you  
5 have to use one of those OC-3s for TDM?

6           A. Yes.

7           Q. And you can use the other three if you  
8 want to for OC-3cs for DSL?

9           A. Yes.

10          Q. Now, on page 22 of Exhibit 6 you talk  
11 about -- you have two different statements here in the  
12 two questions and answers on that page about voice and  
13 data on the same fiber, and one of them is a separate  
14 outboard multiplexer. Do you see that at the top?

15          A. Yes, I do.

16          Q. And there is a second Q and A about  
17 Alcatel manufacturing weight division in the equipment  
18 itself; right?

19          A. Yes.

20          Q. These are two separate solutions?

21          A. Two separate solutions.

22          Q. Thank you. And then you said this before



1 but you say it in writing here on page 23, the  
2 additional cost of the equipment to achieve this  
3 reconfiguration is much better greater than the  
4 incremental cost of using separate fibers for the  
5 voice and data as between the RT and the central  
6 office; do you see that?

7 A. For the deployment of -- yes, I do see  
8 that. For the deployment of Project Pronto today that  
9 is correct.

10 Q. Would the same be true, do you think, if  
11 you are trying to increase capacity after the initial  
12 deployment of Pronto?

13 A. I think that would have to be  
14 re-evaluated with each time you are augmenting  
15 capacity.

16 Q. There could be some circumstances, I take  
17 it, that where it would prove in to use the Alcatel  
18 WDM solution to increase throughput capacity; isn't  
19 it?

20 A. Well, again, as I mentioned a second  
21 ago, that's a technically feasible solution in terms  
22 as to how the light works, but it also could be

1       operationally problematic as far as testing and test  
2       access.

3               Q.   For example, if between an RT and a  
4       central office you were fiber constrained, you might  
5       want to use that kind of solution in those  
6       circumstances; right?

7               A.   We could explore that as a possibility,  
8       right.

9               Q.   But you didn't do any numerical analysis  
10       as the basis for your statement here on page 23 at  
11       lines 2 through 5; is that right?

12              A.   No.   What I am basing that statement on  
13       is the actual deployment that we are making right now,  
14       and that that has been the economic outcome, shall I  
15       say, for each of these deployments.

16              Q.   And then on page 24 you testify that the  
17       advanced fiber communications UMC 1000 equipment  
18       multiplexes both DSL and POTS over the same fibers;  
19       right?

20              A.   Yes.

21              Q.   Is that the kind of base configuration  
22       for that particular DLC system?

1           A. My understanding is that, yes, that's  
2 correct.

3           Q. And would it be fair to say that you  
4 believe the base configuration as you deployed it for  
5 the Litespan is separate fiber systems?

6           A. Yes. That is the Litespan 2000?

7           Q. Yes. Okay. Just very briefly on the  
8 accessible physical end-to-end path of the  
9 architecture point, do you know what I am saying when  
10 I mean that; right?

11          A. In my testimony?

12          Q. Yes.

13          A. Yes.

14          Q. You say it can't be a UNE because it  
15 doesn't occupy an accessible physical end-to-end path  
16 from the premises to the central office handoff;  
17 right?

18          A. Yes. Actually, there is two separate  
19 positions that I have about that. And one is that  
20 it's not a dedicated specific path through the network  
21 such as the other UNEs of this type that the FCC has  
22 put into place. And also the second factor that I

1       talk about is that there is not a one-to-one  
2       correspondence in terms of the interface at both ends.  
3       You have one customer at a copper pair at one end and  
4       potentially hundreds of customers on a piece of fiber  
5       at the other end. So it's a different kind of animal.  
6       It's not something that's anything like what, you  
7       know, what is a UNE that a CLEC could use on a  
8       dedicated basis through the network.

9               Q. I just want to focus on the physical  
10       end-to-end path for a moment, okay?

11              A. Just the first of those two things, okay.

12              Q. Yeah. Right now can I buy a voice grade  
13       loop from Ameritech, a UNE loop?

14              A. An unbundled loop?

15              Q. Correct.

16              A. Voice grade, yes, sir, you can.

17              Q. Can that voice grade loop be provisioned  
18       over DLC?

19              A. Yes, it can.

20              Q. Can it be provisioned over NGDLC running  
21       GR-303?

22              A. The only -- as I explain in my, I think

1       it was my, rebuttal testimony -- no, I take it back,  
2       it was in my surrebuttal testimony, I believe, the  
3       only time that you can obtain a GR-303 type of  
4       unbundled loop through NGDLC is if you win an existing  
5       Ameritech customer that's working that way today, a  
6       voice customer, and you keep that customer under the  
7       UNE platform.

8               Q. Well, I am just trying to explore  
9       technical feasibility here. GR-303 will support a  
10      voice grade UNE loop, won't it, technically?

11             A. If it's obtained under the UNE platform,  
12      physically, technically, yes, that's correct. As a  
13      standalone loop, if you just want me to give you an  
14      ADB unbundled loop for you to take to your switch or  
15      wherever you want to take it, it's not feasible for me  
16      to give you a GR-303 unbundled ADB loop. I would give  
17      you a TR-057 interface loop, if all you want is a bare  
18      loop.

19             Q. Are you telling me that GR-303 can't  
20      support a 64k handoff at the central office terminal?

21             A. No, I am telling you that there are  
22      limitations on how many virtual interface groups I can

1 provision over a GR-303 system. And if ten CLECs want  
2 virtual interface groups, that exceeds the capacity of  
3 that interface in that technology.

4 Q. So a GR-303 interface specification will  
5 support a voice grade handoff at the central office  
6 terminal, won't it, 64k channel?

7 A. Actually, it's my understanding that  
8 GR-303 is a DS-1 interface to a virtual interface  
9 group?

10 Q. Okay. Now, if I get an analog, regular  
11 old voice grade UNE loop from you as a UNE and it  
12 rides on a fiber-fed DLC system, it doesn't occupy the  
13 whole fiber for the portion of the loop that it rides  
14 on fiber; does it?

15 A. I'm sorry. I don't understand how you  
16 worded that, Mr. Bowen. Can you try again?

17 Q. Regular old POTS loop, UNE loop.

18 A. I understand that part.

19 Q. It doesn't take up the whole fiber  
20 between the RT and the central office; right?

21 A. You mean the capacity of the fiber?

22 Q. Right.

1           A. Certainly not.

2           Q. It occupies a time slot on the fiber?

3           A. Only if it's GR-303 does it have a  
4 dynamic time slot. Otherwise, it occupies a bit  
5 stream position which gives it a -- I guess you could  
6 call that a fixed time slot, if you wanted to call it  
7 that.

8           Q. A time division multiplexing slot on the  
9 fiber system?

10          A. Yes, I would agree with that.

11          Q. But, again, that's occupying in that  
12 sense a portion of a physical facility; is it not?

13          A. Yes, it is.

14          Q. And you would agree with Mr. Keown that  
15 GR-303 assigns, in the case of a voice grade loop,  
16 assigns a 64k channel dynamically only for so long as  
17 the call is active on that loop?

18          A. Yes. While the call is up, it has a  
19 specific assignment.

20          Q. And the next time that person, that same  
21 premises, makes a call, it could be riding a different  
22 time slot that's assigned again dynamically by the

1 GR-303 software?

2 A. That's correct. But the important point  
3 is that, while that second call is up, it's in the  
4 same place through the entire duration of that call  
5 and occupies essentially then -- not essentially, but  
6 it does occupy the same band width amount during the  
7 duration of that call.

8 Q. Okay. Well, isn't there a fundamental  
9 paradigm shift at work here between circuit switched  
10 traffic in 64k increments, nailed up or not, and ATM  
11 cell based traffic? Isn't it just a different way to  
12 approach getting information from Point A to Point B  
13 in a fundamental level?

14 A. I agree with you that it's a different  
15 way to get information from Point A to Point B. But  
16 the characteristics of it are definitely different.  
17 On the one hand, as a call is taking place or if it's  
18 nailed up, even if a call is not taking place, it's a  
19 fixed amount of band width and a fixed position on the  
20 bit stream. On the ATM side those cells go through  
21 that bit stream in different places, occupying  
22 different amounts of band width at any point in time.



1           Q. Well, let's talk about voice-over DSL  
2 using CBR. Isn't that essentially the ATM analog to a  
3 64k circuit switch voice service?

4           A. It would be analogous to the 64 kilobit  
5 TDM channel.

6           Q. Okay. You aren't going to say that is  
7 not somehow an actual voice call once you begin to  
8 provision voice-over DSL; right?

9           A. Well, from the end user's perspective  
10 it's a voice call, but it's certainly transported in a  
11 totally different way.

12          Q. Just as voice calls over copper are  
13 transported differently than voice calls over fiber  
14 systems before TDMs; right?

15          A. But both TDM on the older DLC and copper  
16 both give you a fixed amount and a fixed position  
17 situation.

18          Q. So what? Why is that important?

19          A. I guess we just see that as a technical  
20 difference between how the signals are transported  
21 between one place and another. I will point out very  
22 readily that those are not our only reasons why we

1       don't believe that the Project Pronto architecture  
2       should be unbundled. That's one of the reasons.

3               Q. We will just focus on them one at a time.  
4       I understand that. But, again, from a regulatory  
5       perspective, so what? So what if it's not the same on  
6       the TDM side as it is on the ATM side? Isn't the  
7       information going from Point A to Point B in both  
8       circumstances?

9               A. Information is going from Point A to  
10      Point B, yes, sir, I agree with you there. Again,  
11      it's just a totally different manner in which it gets  
12      there. One is a very definite fixed manner and the  
13      other is in a statistical manner.

14              Q. You talk about that on page 29, don't  
15      you, as you talk about what you call the UDT which I  
16      think is unbundled dedicated transport; is that right?

17              A. Yes, sir, that's correct. And on that  
18      page I am contrasting what an unbundled dedicated  
19      transport type of UNE looks like and behaves like  
20      compared to the -- compared to the data side of the  
21      Project Pronto architecture.

22              Q. Okay. When you say unbundled dedicated

1 transport in that context, I take it you mean between  
2 central offices, transport in that sense; is that  
3 right?

4 A. In -- well, in fact, unbundled dedicated  
5 transport exists only between central offices, whether  
6 it's a CLEC central office in an Ameritech Illinois  
7 central office or to an Ameritech Illinois central  
8 offices. But the very same thing is true of other  
9 types of loop UNEs or unbundled loops such as a DS-3  
10 loop or a DS-1 loop or an OC-3 loop.

11 Q. Okay. Well, but the word "transport" in  
12 telecommunications-eeze means interoffice facilities,  
13 right, as you use the term here?

14 A. Actually, the way the FCC defined --  
15 since UDT is an FCC terminology, the way the FCC  
16 defined it is as between offices. Generically,  
17 transport is just getting from one place to another.

18 Q. But the UDT then, as the FCC defined it  
19 as you use it here, means between offices; right?

20 A. Yes. But as I said on page 28, this is  
21 true for, on line 7 and 8, consider unbundled network  
22 elements such as unbundled dedicated transport and

1 unbundled high capacity loops. So what I am  
2 explaining here with my UDT example is true, not only  
3 for UDTs, but also high capacity loops that are  
4 unbundled.

5 Q. Okay. On page 29 you go on to say that  
6 the virtual circuits don't occupy specific fixed  
7 amounts of band width for each server; do you see  
8 that?

9 A. It sounds like what I said. I was  
10 looking for the exact words. Do you have a line  
11 number that you want to point me to?

12 Q. 7 through 10.

13 A. Okay. Yes.

14 Q. That's true. I take it you are talking  
15 there about UBRs; right?

16 A. Probably other classes even beyond UBR.

17 Q. How about CBRs?

18 A. That one is probably unique in that it  
19 has a fixed, I guess you would call it, a fixed amount  
20 of band width.

21 Q. Okay. Well, if you are saying that we  
22 can't get this because it doesn't have a fixed amount

1 of band width, I guess the question that occurs to me  
2 is, once you roll out your interoffice VTOA network  
3 which is going to be ATM based, that's going to  
4 replace all your circuit switched interoffice  
5 facilities, does that mean we are going to lose access  
6 to UDTs because those aren't fixed band width any more  
7 under your logic here?

8 A. The VTOAs is to replace the voice  
9 trunking that's out there, not the facilities that the  
10 VTOA rides over. The facilities that the VTOA rides  
11 over are SONET rings. You can still get capacities on  
12 SONET rings for UDT.

13 Q. If I want to get a UDT once it rides the  
14 VTOA architecture and is ATM based, does that mean  
15 that that will disappear as a UNE then?

16 A. No. Maybe we have a mismatch here. VTOA  
17 is regarding interoffice trunking. And where CLECs  
18 get involved with interoffice trunking is in the  
19 concept of interconnection, like interconnection trunk  
20 groups. But that's different than unbundled network  
21 elements. So VTOA impacts interoffice trunking. It  
22 does not impact the underlying facilities that VTOA

1 rides on top of which could be like an OC-48 SONET  
2 ring or OC-12 SONET ring. And you can obtain UDT, you  
3 can continue to obtain unbundled dedicated transport  
4 on those SONET rings.

5 Q. All right. I want to ask for your lay --  
6 you are not a lawyer, are you, Mr. Lube?

7 A. No, sir.

8 Q. I want to ask for your lay understanding  
9 of a couple of terms that you use in your testimony.  
10 Am I correct that the so-called necessary and impaired  
11 standard applies to UNEs, in your understanding?

12 A. Yes, it does.

13 Q. Now, in your various pieces of testimony  
14 you take significant issue with Mr. Riolo on a number  
15 of issues, one of which is his assertion that whether  
16 or not it's technically feasible he doesn't think it  
17 will be economically feasible for CLECs to install  
18 DSLAMs out at the RT. Do you recall that response  
19 that you gave to his testimony on that point?

20 A. That was a very long question. Are you  
21 referring specifically to where Mr. Riolo said it was  
22 not technically feasible for Rhythms to deploy a

1 remote DSLAM?

2 Q. No, I am talking about economic  
3 feasibility. Do you recall him saying anything about  
4 economic feasibility?

5 A. In what context?

6 Q. Deploying CLEC-owned DSLAMs at the RT, at  
7 or in the RT?

8 A. I remember Mr. Riolo saying that it was  
9 not economically feasible in his view for a CLEC such  
10 as Rhythms to deploy remotely located standalone  
11 DSLAMs, in other words, at an RT. And if you recall,  
12 our response was that Rhythms itself insisted to the  
13 FCC that SBC's ILECs provide additional space at  
14 remote terminal locations just so they could do that.  
15 So I am really confused by Mr. Riolo's position.

16 Q. Well, let's try and clear up the  
17 confusion. Do you agree with Mr. Riolo that it's not  
18 going to be in every case feasible economically to  
19 deploy DSLAMs in the RT?

20 A. I think we did talk about that, you and  
21 me, at great length in the -393 proceeding.

22 Q. Okay. Then we will just say football and

1 import that.

2 A. That's where you put on my CLEC, as I  
3 recall.

4 Q. Then we will just use that discussion we  
5 had just to serve that purpose here. Did we talk  
6 about the engineering control splice in that  
7 discussion at all?

8 A. I don't remember.

9 Q. I don't think we did. Do you know what  
10 an ECS is; don't you?

11 A. Yes, sir, I do.

12 Q. Can you describe for the record what an  
13 engineering control splice is as SBC has used that  
14 term?

15 A. It's a piece of cross connect capability  
16 or a cross connect device that we place into the  
17 network that allows a CLEC to cable its own equipment  
18 over to that point, that cross connect point, so that  
19 it can gain more efficient access to the pairs that go  
20 out to multiple SAIs, so that that CLEC doesn't have  
21 to run its own copper pairs all the way out to each of  
22 those multiple SAIs.



1           Q. If I want to do what Rhythms and others  
2 have asked the FCC to require, which is to deploy here  
3 or there a DSLAM out at the RT, I need to get access  
4 to that copper feeder plant, don't I, unless I go all  
5 the way to the SAI in copper?

6           A. In other words, you need an ECS.

7           Q. Is that right?

8           A. You either need an ECS or you need to  
9 take your cable or take your equipment out to each SAI  
10 which is where you would have access to the copper  
11 subloop, unbundled copper subloop.

12          Q. If I don't want to replicate your copper  
13 feeder network out to the SAIS, I want to use what you  
14 have already installed, I need an ECS; right?

15          A. Yes, sir, that's correct.

16          Q. If I want to serve the central office  
17 subattending area which we are talking about here,  
18 there is 16 to 24 RTs per central office; right?

19          A. That's an average that we use, yes, sir.

20          Q. So let's say 20 is the average of those  
21 two numbers. I need to go out there and collocate 20  
22 of these CLEC-owned DSLAMs somehow at or near those

1 RTs to serve the whole area?

2 A. Only if your business plan involves  
3 marketing to that entire wire center.

4 Q. Let's assume that it does.

5 A. Then yes, that's what you would have to  
6 do.

7 Q. So I need 20 DSLAMs collocated at or near  
8 your RT; right?

9 A. Yes.

10 Q. Then how many ECSs do I need? 20?

11 A. Yes, sir.

12 Q. I don't recall if it was in the Texas or  
13 Illinois tariff case, but do you recall an SBC witness  
14 saying that the estimated price for each ECS was  
15 \$15,000 and up?

16 A. I don't remember that. That could have  
17 been said. I don't remember.

18 Q. Let's assume it's \$15,000 and up. Was  
19 that \$300,000 if you take that times 20?

20 A. I'm sorry, yes. Were you asking me if  
21 that was \$300,000?

22 Q. Yes.

1           A. Yes.

2           Q. And do you know how much a DSLAM costs to  
3 put out in the field?

4           A. I don't know what you pay for the DSLAMs,  
5 no, sir. And there are different sizes I know that  
6 you have access to. So no, sir.

7           Q. Do you know what any of them cost?

8           A. Any that the CLECs buy? No CLECs have  
9 ever told me what they pay.

10          Q. Do you know what the list prices are for  
11 the kind of DSLAMs you think the CLECs could deploy?

12          A. I don't know how much they are, no, sir.

13          Q. If we go out there and put 20 DSLAMs out  
14 there and get 20 ECSs, we still have to get back to  
15 our network somehow, right, because we have to get  
16 fiber transport that we self supply or we get from  
17 somebody; right?

18          A. That's correct.

19          Q. So we would need, if we are going to get  
20 it from you, we need to have fiber available in every  
21 one of those RTs to make this work; right?

22          A. That 's correct.

1           Q. And have you tried to assess the chances  
2 of that happening in Illinois?

3           A. No, I have not.

4           Q. Well, whether or not you think it's cost  
5 effective to do this, to decide that wouldn't you need  
6 to do, you or somebody, do some actual numerical  
7 analysis like a business case to try to reach that  
8 conclusion?

9           A. This is what we talked about in the  
10 tariff investigation hearing in October here.

11          Q. Well, since then have you done a business  
12 case analysis or has anybody at Ameritech done a  
13 business case analysis to be able to support a  
14 conclusion that this would be feasible economically?

15          A. No, but I have to assume Rhythms has or  
16 they wouldn't have demanded that the FCC require us to  
17 provide additional space in RTs science as a condition  
18 for Pronto equipment ownership.

19          Q. You have said that twice, Mr. Lube. That  
20 was a Data Coalition filing; wasn't it?

21          A. May 19, 2000.

22          Q. Was that a Data Coalition filing?

1           A. Yes, it was.

2           Q. What does coalition mean to you? Does  
3 that mean Rhythms by itself?

4           A. It means to me that the five parties,  
5 which included Rhythms and Covad, all had an interest  
6 in the things that are being demanded at the FCC as  
7 conditions for SBC.

8           Q. And did anything in that pleading  
9 indicate to you that any of those parties or those  
10 parties in total planned to use this option in every  
11 case where you are deploying a Project Pronto RT?

12          A. Gosh, I don't think I ever implied that  
13 it was going to be in every case. But I would  
14 certainly presume that you had a valid interest in  
15 using it somewhere.

16          Q. Well, somewhere doesn't mean everywhere;  
17 does it?

18          A. I agree.

19          Q. And if we want to be able to use the  
20 Project Pronto architecture or some part of it and we  
21 can't get it via UNEs and don't want a wholesale  
22 broadband service, we need to deploy DSLAMs

1        everywhere; wouldn't we?

2                A.    Yes, you would have to, and you have that  
3        ability to do that.

4                Q.    Now, one of the options, if you flip  
5        forward on page 36, the last bullet, again, shying  
6        away from the evil unbundling Pronto, the last  
7        bulletin says that a CLEC can undertake its own  
8        broadband initiative, do you see that, and employ its  
9        own infrastructure?

10              A.    Yes, sir, I do.

11              Q.    Are you suggesting that it would be a  
12        wise idea for one or more CLECs to spend six billion  
13        dollars to replicate the so-called Project Pronto  
14        overlay network?

15              A.    If even parts of that network were within  
16        a CLEC's business plan to be economic to that CLEC,  
17        certainly it could. I mean, what I guess I am saying  
18        is, SBC bellied up to the bar and said we will do  
19        this. Any other provider out there, if it's within  
20        its business plan and financing to do so, it could  
21        have done the very same thing.

22              Q.    Well, are you sitting here telling us

1       that you think that NorthPoint or Covad or Rhythms  
2       individually could have access in the capital markets  
3       to six billion dollars to do this?

4               A.   No, that's why I said any part of that.  
5       Let's say that Rhythms specifically singled out  
6       Pfleugerville as a place where they wanted to sell all  
7       their DSL service from now until eternity. Then you  
8       may want to build out that wire center, if it was  
9       appropriate for you to do so. That's your choice and  
10      your decision to make. But if that was the right  
11      thing for you to do, you can do that. You have at  
12      your disposal the inputs that you need, access to the  
13      equipment. You can lay fiber, if that's appropriate  
14      for you to do so.

15             Q.   Did you say Pfleugerville?

16             A.   Yes, sir.

17             Q.   Pfleugerville, Texas?

18             A.   Yes, sir. I can pick an Illinois town;  
19      that would be okay, too.

20             Q.   Weren't you at that Project Pronto RT  
21      tour in Pfleugerville?

22             A.   Yes, sir, I was.

1           Q. And didn't you, along with me and others,  
2 observe the actual configuration of the line cards in  
3 that RT.

4           A. We saw how they had been plugged into the  
5 slots, yes, sir, we did.

6           Q. And on the defense side of that  
7 Pflugerville Project Pronto RT, isn't it correct that  
8 in one of the data channel banks the top row of card  
9 slots was occupied only?

10          A. That's how much was in that channel bank  
11 assembly, yes.

12          Q. And isn't it true that in that channel  
13 bank assembly there were both POTS-only cards and ADLU  
14 cards side by side?

15          A. Yes. Incorrectly there were both types  
16 of cards in the channel bank assembly.

17          Q. Do you recall anybody at the site  
18 asserting that that was an incorrect configuration?

19          A. I don't recall what was said by who at  
20 that point in time. I do know that we were under  
21 strict order of the judge in Texas not to go find  
22 offices and sites that complied with any particular



1       procedures. In fact, if we modified anything at a  
2       work location or at an equipment location, we had to  
3       explain to the judge and the CLECs what we would have  
4       done, which we had not done. But if we had done that,  
5       we would have had to have disclosed that under the  
6       judge's order.

7               Q. Well, weren't you in fact supposed to go  
8       out and find a representative central office and  
9       deployment of Project Pronto for viewing?

10              A. We thought we had.

11              Q. So did I. Now, you talk about access  
12       collocation and access to existing UNEs late in your  
13       testimony, don't you, around page 40, for example?  
14       This is in the context of owning line cards.

15              A. Yes, I am glad you specified the context.

16              Q. And, in fact, on page 40, line 9 and 10,  
17       you talk about collocation. You are asserting  
18       collocation is necessary only for equipment that  
19       provides access to existing UNEs?

20              A. I did say that, and that's because I  
21       completely believe that, to order collocation just as  
22       a means to establish that something that it connects

1       to is a UNE, to me is completely backwards. The fact  
2       that something is a UNE, in my mind, has to be  
3       established first based on impairment. Once that's  
4       been established, then collocation can be established  
5       as a possibility.

6               Q. Well, I read your testimony. I wasn't  
7       inviting you to recap it. I thought you wanted to go  
8       home today at some point. If you want to recap your  
9       whole testimony, I am going to ask you a simple  
10      leading question and you can do that. Were you  
11      finished with that answer?

12             A. Yes, sir, I was.

13             Q. Now, would you agree with me that this  
14      Commission has the power to declare new UNEs; does it  
15      not?

16             A. I believe it can if it satisfies the  
17      requirements of the Act.

18             Q. Okay. And this Commission, I take it,  
19      under that power could declare new UNEs that might  
20      ride on the Pronto architecture, couldn't it, if it  
21      followed the requirements of the Act as you describe  
22      this now?

1           A. I believe if it chose to do that, that it  
2 could.

3           Q. And couldn't it at the same time as it  
4 was declaring new UNEs also declare that CLECs could  
5 own line cards and collocate those line cards to get  
6 access to the new UNEs? Couldn't it do it all at  
7 once?

8           A. Hypothetically, I suppose they could.  
9 The issue was, if it's done the other way, if it's  
10 done for that purpose, though.

11          Q. Quick question based on what I understood  
12 to be Mr. Binnig's cross yesterday. I am back on your  
13 rebuttal testimony, page 12. And the issue here is  
14 differentiation by CLECs of products that might be  
15 possible using your wholesale broadband service, okay?

16          A. Yes, sir.

17          Q. And you are saying that we can use  
18 different combinations of upstream and downstream  
19 speeds, right, on line 14?

20          A. Yes, sir, different maximum and minimum  
21 upstream and downstream speeds; that's right.

22          Q. Now, the Alcatel equipment supports

1 speeds in 32k chunks, if you will; right?

2 A. That's correct, increments.

3 Q. So that anywhere -- on the downstream  
4 side anywhere between, I guess, 32k and 8.128  
5 megabytes per second will support it; right?

6 A. That's correct.

7 Q. And upstream it's 32 to, what, 900  
8 something?

9 A. 832.

10 Q. 832, okay.

11 A. Those are the maximums, not the minimums.

12 Q. You agree with me -- exactly. You will  
13 agree with me that, therefore, there is not an  
14 infinite number of combinations that are possible to  
15 configure; right?

16 A. Actually, by my calculation there is  
17 about three million. That's quite a few.

18 Q. Okay. Well, but isn't -- are you  
19 familiar with the provisioning tools, are you not,  
20 that your company is offering to data CLECs to  
21 configure these different combinations?

22 A. Vaguely. Or I say vaguely, reasonably

1 conversationally familiar with them.

2 Q. Well, there is a system called SOLID,  
3 isn't there, that can do that?

4 A. That's correct.

5 Q. There is access to a system called the  
6 BOP GUI, broadband ordering profile GUI?

7 A. Right.

8 Q. And isn't the limited configurations per  
9 CLEC 99.0?

10 A. Yes, it's much less. The point here was  
11 there is a possible three million combinations of  
12 upstream and downstream speed. Even if there is 90  
13 combinations, that is quite a bit of, in my eyes,  
14 quite of bit of product differentiation possibility.

15 Q. I understand that's your testimony. But  
16 you are agreeing with me that it's not three million,  
17 in the practical world it's 90; right?

18 A. To be honest with you, I don't know  
19 whether it's 90 or 96 or 102, but I know it's in the  
20 --

21 Q. Do you need to check that as a data  
22 request or are you just willing to agree with me it's

1       90, based on the Texas and Illinois tariff and  
2       elsewhere?

3               A. Ninety sounds okay to me. I know it's a  
4       limited number.

5               Q. All right. On page 16 of that same  
6       testimony, again, this is on the same issue of the  
7       CLEC ownership of line cards, you testify according to  
8       here any manner of permitting CLECs to own or specify  
9       and collocate Project Pronto NGDLC line cards would  
10      reduce Ameritech Illinois' incentive to further deploy  
11      Project Pronto; do you see that?

12              A. Yes, sir, I do.

13              Q. The question for you is, whatever the  
14      incentives might be, are you testifying that Ameritech  
15      would in fact reduce its deployment of Pronto if CLECs  
16      own their own line cards?

17              A. No, I am testifying that Ameritech  
18      Illinois and its parent SBC would certainly have to  
19      re-evaluate the continued deployment of Pronto under  
20      that scenario.

21              Q. Okay. We talked about this last time in  
22      the tariff case.

1           A. Yes, we did.

2           Q. Since then do you have any numerical  
3 analysis you could bring to bear on the issue of when  
4 or if you might decide to reduce or stop deployment if  
5 CLECs own the line card?

6           A. I do not.

7           MR. BOWEN: That's all I have. Thank you,  
8 Your Honor.

9           EXAMINER WOODS: Ms. Franco-Feinberg?

10          MS. FRANCO-FEINBERG: Actually, in light of  
11 Mr. Bowen's cross, Covad would just like to move in  
12 the transcript of Mr. Lube's cross from the 00-0393  
13 docket as well as Ameritech redirect from yesterday.

14          EXAMINER WOODS: Do we have that prepared as  
15 an exhibit?

16          MS. FRANCO-FEINBERG: Actually, I am informed  
17 it may be more than trouble. We will soon provide it  
18 to the parties.

19          MS. HIGHTMAN: Can we mark it and then  
20 provide it electronically? Well, that's worse.

21          EXAMINER WOODS: Yes, that's worse at this  
22 point in the proceeding.

1 MS. FRANCO-FEINBERG: The only other matter  
2 that I would like to address --

3 MS. HIGHTMAN: Wait. We should have an  
4 exhibit number, though, so we have an exhibit number  
5 for the transcript.

6 EXAMINER WOODS: I don't know where you guys  
7 are.

8 MS. HIGHTMAN: We haven't done anything in  
9 this phase.

10 MR. BOWEN: Actually, I think it's been  
11 across two different hearing days, if I recall.

12 MS. HIGHTMAN: Why don't we mark it as Cross  
13 Exhibit A? We don't have any Exhibit As.

14 EXAMINER WOODS: Okay. Letters would be  
15 good.

16 MS. HIGHTMAN: Just Cross Exhibit A.

17 MS. FRANCO-FEINBERG: And that would be both  
18 days; right?

19 MS. HIGHTMAN: And that's his entire  
20 testimony in the transcript.

21 MR. HUCKMAN: This is Andrew Huckman in  
22 Chicago. I am having trouble hearing. If you could



1 state into the telephone what you just agreed about?

2 MR. BINNIG: This was actually a prior  
3 agreement. Ameritech Illinois yesterday indicated  
4 that it was willing to stipulate to the admission of  
5 Mr. Lube's entire cross examination and redirect. And  
6 I forget if there were recrosses and redirects or not,  
7 but all that stuff from the 00-0393 docket. And so  
8 Covad is going to put together a cross examination  
9 exhibit consisting of that and that will be admitted  
10 into the record.

11 MR. HUCKMAN: Great, thank you.

12 MR. FEIN: The other matter I would like to  
13 address pursuant to our conversation with Ameritech  
14 earlier today is to address Ameritech's responses to  
15 certain data requests on rehearing and the failure to  
16 provide the documents that were attached or requested.  
17 We just want confirmation whether those documents  
18 exist or not. I believe Ameritech indicated it would  
19 like to do so on the record; is that correct?

20 MR. HUCKMAN: I need you to say that again a  
21 little closer to the microphone.

22 MS. FRANCO-FEINBERG: Sorry. Basically, I am

1       just going to address with Ameritech's witnesses some  
2       of Ameritech's responses to Covad's data requests.  
3       Covad requested documents in certain cases that  
4       apparently were not provided by Ameritech, and  
5       Ameritech indicated it would want to orally make a  
6       representation on the record under oath that those  
7       documents apparently do not exist.

8               MR. HUCKMAN:   Okay.   Are we on the record at  
9       this time?

10              MS. FRANCO-FEINBERG:   Yes, we are.

11              MR. HUCKMAN:   In that instance, I may also  
12       add that yesterday during the proceeding Ameritech  
13       made a data request of Staff witness Torsten Clausen,  
14       and that just a few minutes ago Mr. Clausen provided  
15       an answer to Ameritech and he has copies of that  
16       answer available in the room, should any of the other  
17       parties require it.

18              EXAMINER WOODS:   Okay, Mr. Binnig?

19              MR. BINNIG:   That is correct.   In fact, I  
20       believe he has provided it to the other parties.

21              EXAMINER WOODS:   Okay.   Thank you.   Do you  
22       have a response to the data requests?

1                   MR. BINNIG: We have none. Oh, for her?

2                   MR. PABIAN: To which data requests? Give us  
3 the data request.

4                   MS. FRANCO-FEINBERG: Sure. The first data  
5 request that Covad issued on rehearing asked for a  
6 copy of all technical standards, guidelines, or other  
7 documentation or information on which Ameritech or SBC  
8 relied to provide this explanation as to whether  
9 Ameritech and SBC currently provision non-line shared  
10 UNE loops, voice and ISDN, configured through  
11 Ameritech's existing digital loop carrier equipment  
12 that carry traffic from the central office to the  
13 customer premises.

14                   Ameritech responded yes but did not  
15 provide any technical standards, guidelines, or other  
16 documentation relied on to provide this explanati on.

17                   MR. PABIAN: None were relied on.

18                   MS. FRANCO-FEINBERG: Was Mr. Lube involved  
19 with the preparation of this data response?

20                   THE WITNESS: Yes, I was, and I relied on my  
21 personal knowledge of the question asked and did not  
22 utilize any documents, standards documents, or any

1 other documents.

2 CROSS EXAMINATION

3 BY MS. FRANCO-FEINBERG:

4 Q. To gain that personal knowledge did you  
5 rely at some point on documentation, technical  
6 standards, or guidelines?

7 A. If I might take this piece by piece, this  
8 is a multipart data request. As I recall, it first  
9 asked if we provide, how did it say, non-line shared  
10 --

11 MR. BINNIG: Let him see it.

12 A. Maybe that would be very helpful. Okay.  
13 Whether SBC and Ameritech currently provisi on non-line  
14 shared UNE loops, for example, to our analog and ISDN  
15 to our digital, configured through Ameritech's digital  
16 loop carrier equipment that carried traffic from the  
17 central office to the customer premises.

18 I can't think of any specific documents  
19 that I might have looked at over the last ten years to  
20 understand that we can provide POTS two-wire analog  
21 over a DLC. In fact, I think I probably first knew  
22 that in the late 70s, in the late 1970s. ISDN, I have

1       just been familiar with that through conversation with  
2       employees of my company, that I know this to be true.  
3       I don't have any personal documentation in my disposal  
4       that says this, but I know that we can do it.

5               Q.   Can I also assume then from your answer  
6       that there is a second part to that question that  
7       indicates, if Ameritech responds yes, which it did, it  
8       asks for a detailed explanation of any technical, i.e.  
9       excluding legal reasons such as the definition of line  
10      sharing under the FCC's Line Sharing Order, reasons  
11      that prevent Ameritech from carrying POTS and xDSL  
12      traffic on a line shared loop from the central office  
13      to the customer premises through the Project Pronto  
14      NGDLC equipment.  And then it obviously would also  
15      call for any technical standards or guidelines or  
16      documentation or information on which Ameritech or SBC  
17      relied upon to provide this explanation.

18              Is it Ameritech's explanation that there  
19      are no documents, no technical standards, guidelines,  
20      or any other kind of documentation that support its  
21      explanation here?

22              A.   I personally would say that there are

1 technical documents that address the type of TDM  
2 multiplexing used on the voice side of that  
3 architecture and the ATM type multiplexing or packet  
4 based type of multiplexing used on the DSL side of  
5 that architecture. There are, I am sure, even  
6 documentation or, I'm sorry, documents out there that  
7 talk about ISDN and two-wire analog loops over DSN as  
8 well. I did not rely on any of those documents to  
9 prepare this answer.

10 Q. And you are the only person who was  
11 involved in the responding -- in responding to Data  
12 Request Number 1 on rehearing, Covad First Subdata  
13 Request on Rehearing Data Request Number 1?

14 A. I wrote the response. I am quite certain  
15 that other Ameritech Illinois employees looked at it  
16 before it was returned to Covad.

17 MS. FRANCO-FEINBERG: Okay. Your Honor, for  
18 the clarity of the record, would you prefer that I  
19 mark these data requests into the record as we go  
20 along? I don't know if the record --

21 EXAMINER WOODS: Are they going to be  
22 introduced as exhibits?

1 MS. FRANCO-FEINBERG: Right. I guess we  
2 would have to do that in that circumstance.

3 EXAMINER WOODS: Well, if they are going to  
4 get into the record, they have to be exhibits. So we  
5 have to get them marked. If they aren't going to be  
6 exhibits, then there is no point in marking them.

7 MS. FRANCO-FEINBERG: We are going to mark  
8 Data Request 1 as Cross Exhibit B.

9 Turning now to -- Mr. Binnig, do you have  
10 copies to provide Mr. Lube of these data requests or  
11 would you like me to?

12 MR. BINNIG: Which page are you on?

13 MS. FRANCO-FEINBERG: I am on Data Request 3,  
14 Covad's data request on rehearing. This request asks  
15 does Ameritech or SBC assert that all line shared xDSL  
16 service provided by Ameritech, SBC, or any of their  
17 affiliates would be provisioned on all-copper loops  
18 through the end of 2002. The answer is yes. The  
19 request also calls for a detailed description and a  
20 copy of all documentation or other information relied  
21 upon by Ameritech or SBC to respond to this request.  
22 We will mark this as Cross Exhibit C.

1                   EXAMINER WOODS: Just off the record real  
2 quick.

3                                   (Whereupon there was then had an  
4 off-the-record discussion.)

5                   MS. FRANCO-FEINBERG:

6                   Q. Is it Ameritech's position or is it your  
7 representation that there are no documentation or  
8 other information to respond to this request?

9                   MR. BINNIG: I think I will object at this  
10 point. The question is different from the data  
11 request. The data request asked for technical  
12 analyses and other documentation that were relied on  
13 in providing the answer.

14                   MS. FRANCO-FEINBERG: I am sorry. Actually,  
15 there is no limitation to technical information.

16                   MR. BINNIG: I am not limiting it to  
17 technical. The point is, was there any documentation  
18 that was relied on.

19                   Q. Okay. Was there?

20                   A. NO, there was not.

21                   Q. And, Mr. Lube, were you personally  
22 responsible for responding to this request?



1           A. I was partly responsible for this request  
2 or for the response to this request.

3           Q. So, is it Ameritech's position then that  
4 neither you nor anyone else relied on any  
5 documentation to respond to this request, anyone that  
6 was involved in the final Data Request 3?

7           A. In other words, is it Ameritech Illinois'  
8 position that the response is yes? I'm sorry, I kind  
9 of lost that.

10          Q. You seemed to indicate, if I understood  
11 you correctly, that you did not -- you were one of the  
12 individuals responsible for this request, responding  
13 to this request; is that correct?

14          A. Yes.

15          Q. So there were others involved in  
16 responding to this request?

17          A. I believe Mr. Keown was involved in this  
18 response as well. I can speak to it, if that's what  
19 you would like to do.

20          Q. Okay. So are you indicating that all  
21 individuals who were responsible for this request did  
22 not rely on any documentation in the response?

1           A. That's my statement, yes.

2           Q. Would Mr. Keown have a different  
3 statement?

4           A. Mr. Keown and I were together when these  
5 were responded to, and Mr. Keown nor myself, neither  
6 one, relied on any documents.

7           Q. Thank you. Turning now to Covad's first  
8 data request on rehearing, Data Request 5 which we  
9 marked Cross Exhibit D as in David, here Covad asks  
10 has Ameritech or SBC ever described Project Pronto's  
11 offerings as a broadband UNE. And the answer is yes.  
12 And then it asks to please provide a copy of all  
13 documents reviewed or referred to by Ameritech or SBC  
14 to respond to this request. Were you involved in  
15 responding to this request, Mr. Lube?

16           A. I could be mistaken, but I believe  
17 Ms. Chapman is responsible for this response.

18           Q. Okay. We will wait until Ms. Chapman  
19 gets up. Thank you.

20           Q. Turning now to Data Request 6 which will  
21 be marked Cross Exhibit F, this request asks for a  
22 copy of all cost studies, analyses, or other cost

1 models developed by or for SBC, Ameritech, or its  
2 parent, and any subsidiary and affiliate of Ameritech  
3 or its parent regarding, referencing, or based in  
4 whole or in part on Ameritech's fiber-fed Next  
5 Generation Digital Loop Carrier loop configurations,  
6 and requests that Covad be provided any business case  
7 analysis or other analysis undertaken by or on behalf  
8 of Ameritech that includes revenue opportunities or  
9 other considerations that arose as part of the process  
10 of considering, designing, or implementing fiber-fed  
11 NGDLC as well as workpapers supporting documentation,  
12 cost studies, analyses or models.

13 In response, Ameritech refers Covad to  
14 Covad/Rhythms data request in Docket 00-0393 which is  
15 a cost study which was submitted in the generic line  
16 sharing docket. Is it Ameritech's position that there  
17 are no other cost studies, analyses, or cost models  
18 developed by or for SBC or any of its affiliates or  
19 parents regarding the NGDLC loop configuration,  
20 including any internal business case analyses?

21 A. I am not a cost witness. I can't respond  
22 to that. If the question were the same in 00-0393 and

1       that was the response, I would presume that was the  
2       documentation that's available. But I am not a cost  
3       witness.

4               Q. Then can you tell me who prepared this  
5       response on behalf of Ameritech?

6               MR. PABIAN: I assisted in it.

7               MS. FRANCO-FEINBERG: Okay. And can someone  
8       on behalf of Ameritech make the representation then  
9       that this is all the cost studies, analyses, or cost  
10      models that were prepared by or for SBC, including  
11      internal business cases analyses, the cost study that  
12      was prepared or responded to in the generic line  
13      sharing tariff 00-0393?

14              MR. PABIAN: To the best of our knowledge.

15              MS. FRANCO-FEINBERG: Can I ask what efforts  
16      were made to locate documents? I mean, you are  
17      telling me the only thing was a cost study that was  
18      prepared to support tariff pricing in the whole world  
19      of SBC documents? Is that your position?

20              MR. PABIAN: That was the information that  
21      was related to me.

22              MS. FRANCO-FEINBERG: Can you tell us who you

1       talked to to determine that that's all the documents  
2       that were available?

3               MR. PABIAN:   Who I talked to?

4               MS. FRANCO-FEINBERG:   Yes, what efforts you  
5       made to respond to Covad's data request, is the  
6       question.

7               MR. PABIAN:   This is the only one.   The  
8       information that was provided in 00-0393 is the only  
9       information that we are aware of at this time.

10              MS. FRANCO-FEINBERG:   So is it Ameritech's  
11      position then that SBC has done no other analysis,  
12      cost model, or cost study referencing or based in  
13      whole or in part on Ameritech's fiber-fed next  
14      generation digital loop configuration other than --  
15      including revenue opportunities that may derive from  
16      it -- other than the cost study that was produced for  
17      pricing Project Pronto in the line sharing tariff  
18      docket?   That's your representation?

19              MR. PABIAN:   Well, with respect to the cost  
20      models and cost studies, the information that was  
21      provided is all the information we are aware of.

22              MS. FRANCO-FEINBERG:   And so in addition,

1 obviously, the sentence says please provide any  
2 business case analysis or other analysis undertaken on  
3 behalf -- by or on behalf of Ameritech and include  
4 revenue opportunities or other considerations that  
5 arose as part of the process for considering,  
6 designing, or implementing fiber-fed NGDLC. Is it  
7 your position there are no documents related to that  
8 request, that portion of the request?

9 MR. PABIAN: As far as we know that's by  
10 analysis undertaken by or on behalf of Ameritech so --

11 MS. FRANCO-FEINBERG: Can you -- I believe,  
12 Mr. Pabian, you still haven't responded to the  
13 question of what efforts Ameritech made to respond to  
14 Covad's data request.

15 MR. PABIAN: Well, I had my assistant contact  
16 some people and I am not aware of everybody that was  
17 contacted.

18 MS. FRANCO-FEINBERG: So I want to just be  
19 absolutely confident that there are no business case  
20 analyses or other analyses that were undertaken before  
21 this cost study was developed or after this cost study  
22 was developed, so nothing was done with respect to

1 Project Pronto deployment other than this cost study,  
2 absolutely no analysis whatsoever?

3 MR. PABIAN: None that I am aware of.

4 MS. FRANCO-FEINBERG: Can Ameritech provide  
5 us with information as to who Ameritech contacted to  
6 determine if this information were available?

7 MR. PABIAN: I can try to find out.

8 MS. FRANCO-FEINBERG: Which actually was  
9 Covad's request. In our instruction we asked that  
10 every individual that was responsible for preparing  
11 any of the responses be listed by name, title, and I  
12 believe business address. And that was not provided  
13 as part of Ameritech's -- and any witnesses that were  
14 responsible for that, obviously, so that we could  
15 cross examine them to the extent that they were  
16 responsible.

17 MR. PABIAN: We will continue to check and we  
18 will get back to you.

19 MS. FRANCO-FEINBERG: And I also want to make  
20 sure that Ameritech also confirms that no documents or  
21 responses to request were developed by or for SBC or  
22 any of its affiliates.

1 MR. BINNIG: That's a different request.

2 MR. PABIAN: That's a different request then.

3 MS. FRANCO-FEINBERG: No, it isn't. It's the  
4 first sentence.

5 MR. PABIAN: You mean for cost studies or  
6 cost models, okay, but not business cases.

7 MS. FRANCO-FEINBERG: Right, and then the  
8 second part says by or on behalf of Ameritech which  
9 would encompass anyone who did something on behalf of  
10 Ameritech as well, not simply an Ameritech-produced  
11 document, if that makes sense.

12 MR. PABIAN: Right.

13 MS. FRANCO-FEINBERG: So can we expect a  
14 revised response from Ameritech?

15 MR. PABIAN: If revision is appropriate.

16 MS. FRANCO-FEINBERG: And can we -- when can  
17 we expect that response?

18 MR. PABIAN: I don't know. As soon as we  
19 can.

20 MS. FRANCO-FEINBERG: Can we expect something  
21 by tomorrow when Ms. Chapman is on the stand or off  
22 the stand?



1                   MR. PABIAN: I can't guarantee that given the  
2     time.

3                   MS. FRANCO-FEINBERG: I am sure you will make  
4     your best efforts.

5                   MR. PABIAN: I surely will.

6                   MS. FRANCO-FEINBERG: Okay. Similarly, in  
7     Data Request Number 7, which will be marked Covad  
8     Cross Exhibit F as in Frank or Felicia, Covad  
9     requested that Ameritech provide a copy of all  
10    materials, including but not limited to cost  
11    estimates, studies, or models provided to Ameritech  
12    investors, financial analysts or shareholders  
13    regarding or referencing Ameritech's fiber-fed NGDLC  
14    loop configurations. Ameritech refers Covad to its  
15    response to data request 6 which is a confidential  
16    cost study submitted to this Commission.

17                   Is that Ameritech's position, that that's  
18    the only material provided to its investors, financial  
19    analysts or shareholders regarding or referencing  
20    Ameritech's fiber-fed loop configurations?

21                   MR. PABIAN: Are you asking me?

22                   MS. FRANCO-FEINBERG: I guess I am asking who

1       can respond on behalf of Ameritech.

2               Q.   Mr. Lube, were you involved in the  
3       preparation of this response?

4               A.   No, I was not.

5               Q.   Do you know who was?

6               A.   No, I do not.

7               MS. FRANCO-FEINBERG:   Can Ameritech's counsel  
8       inform us, as we requested as part of this data  
9       request, who was responsible for preparing the  
10      response to Data Request Exhibit Number 7, Cross  
11      Exhibit F?

12              MR. PABIAN:   We will check and get back to  
13      you.

14              MS. FRANCO-FEINBERG:   Okay.   And I assume  
15      part of that confirmation will be whether there are  
16      any additional documents?

17              MR. PABIAN:   Right.

18              MS. FRANCO-FEINBERG:   In response to this  
19      request.   Thank you.

20              The final data request is Covad's first  
21      set of data requests on rehearing, Data Request 8,  
22      which will be marked Cross Exhibit G, in which Covad

1 requested that Ameritech provide -- it said, "State  
2 the terms and conditions, including those offered to  
3 Ameritech's internal operations, Ameritech's parent,  
4 and affiliates or subsidiaries of Ameritech and their  
5 parents under which Ameritech will provide CLECs with  
6 access to the copper and fiber portions of loops  
7 configured over the fiber-fed NGDLC configurations for  
8 line sharing. If such terms and conditions are  
9 contained in any document or communication, please  
10 provide copies of all such information. Such response  
11 should include any network diagrams, drawings or other  
12 representation of the fiber-fed NGDLC configuration."

13 EXAMINER WOODS: You know, I notice she is  
14 reading along with you, but that's just incredibly  
15 fast. Just tone it down a little bit, especially when  
16 you are reading, because it's so much easier to read  
17 quickly rather than speak quickly, which you do very  
18 well anyway.

19 MS. FRANCO-FEINBERG: Would you like me to  
20 read it again?

21 EXAMINER WOODS: No, no, we don't want to  
22 hear it again.

1           Q. Is it -- Mr. Lube, were you involved in  
2     responding to Data Request Number 8?

3           A. No, ma'am, I sure was not.

4           Q. Do you know who was responsible?

5           A. No, I do not.

6           MS. FRANCO-FEINBERG: Again, directing  
7     towards Ameritech's counsel, can we receive  
8     information again, as we requested in our initial  
9     instructions related to these data requests, as to who  
10    was responsible for responding to this request?

11          MR. PABIAN: Sure.

12          MS. FRANCO-FEINBERG: And can -- is it  
13    Ameritech's position that all documents responsive to  
14    this request have been provided or is that something  
15    that you would like to look into?

16          MR. PABIAN: I think we have provided that  
17    information.

18          MS. FRANCO-FEINBERG: Okay. Again, I am not  
19    certain who responded. Are you suggesting,  
20    Mr. Pabian, that you were the party responsible for  
21    responding to Data Request Number 8 on behalf of  
22    Ameritech?

1           MR. PABIAN: You are looking for the actual  
2 information requested?

3           MS. FRANCO-FEINBERG: I am asking to confirm  
4 with the person responsible for preparing Data Request  
5 8, the response that all documents in Ameritech's  
6 possession or control had been considered, examined  
7 and produced as required.

8           MR. PABIAN: Okay. We will confirm who was  
9 responsible for asking this, and whether or not there  
10 is any documentation other than what's already been  
11 provided.

12          MS. FRANCO-FEINBERG: Okay. Covad would move  
13 for the admission of Cross Exhibits B through G.

14          EXAMINER WOODS: For what they are worth, I  
15 guess.

16          MR. BINNIG: For what they are worth. If we  
17 are going to be giving revised responses that says who  
18 was responsible for developing the response, I don't  
19 know what value these have.

20          EXAMINER WOODS: They have already been  
21 marked, so I think we will let them in. And if we  
22 need to supplement, we will just try to find some new

1 letters.

2 (Whereupon Covad Cross Exhibits  
3 B through G were marked for  
4 purposes of identification  
5 and admitted into evidence.)

6 MS. FRANCO-FEINBERG: Thank you. That's all  
7 Covad has.

8 EXAMINER WOODS: That's it?

9 MS. FRANCO-FEINBERG: Yes, thank you.

10 EXAMINER WOODS: Mr. Bowen?

11 MR. BOWEN: Yes, Your Honor?

12 EXAMINER WOODS: Anything you want to follow  
13 up?

14 MR. BOWEN: No.

15 EXAMINER WOODS: A couple minutes redirect?

16 MR. BINNIG: A couple minutes, Your Honor.

17 (Whereupon the hearing was in  
18 a short recess.)

19 EXAMINER WOODS: Mr. Binnig?

20 MR. BINNIG: Yes, I do have a few questions  
21 on redirect.

22

1 REDIRECT EXAMINATION

2 BY MR. BINNIG:

3 Q. Mr. Lube, you recall that Mr. Bowen asked  
4 you a number of questions about the copper, what I  
5 will call, the copper maintenance and retention  
6 commitments or conditions in the Project Pronto order;  
7 do you recall those questions?

8 A. Yes, I do.

9 Q. And so we don't have to rely on your  
10 memory of what those conditions might be, the  
11 conditions contained in the Project Pronto order are  
12 specified in Appendix 7 of that order; is that  
13 correct?

14 A. That's correct.

15 Q. Now, Mr. Bowen also asked you several  
16 questions about voice-over DSL technology and what  
17 SBC's plans might be in terms of deploying voice-over  
18 DSL; do you recall that?

19 A. Yes, I do.

20 Q. What is your understanding of whether any  
21 SBC ILECs can deploy voice-over DSL service?

22 A. It's my understanding that the SBC ILECs

1 cannot provide voice-over DSL.

2 Q. Why is that?

3 A. On a retail basis. Let me clarify that.  
4 That's because voice-over DSL actually is an advanced  
5 service because the voice is traveling on part of the  
6 DSL signal so, effectively, it's DSL with just voice  
7 within it.

8 Q. And what is the source of the prohibition  
9 on providing that service to SBC ILECs?

10 A. The merger commitments.

11 Q. Let's assume at some point in time --  
12 this is a hypothetical -- that the SBC ILECs are free  
13 of those merger commitments so they could deploy  
14 voice-over DSL service if it proved to be technically  
15 effective or whatever term you use, there was no legal  
16 prohibition, would you expect SBC to deploy that type  
17 of service to customers, end users, who did not want  
18 to purchase any kind of DSL service?

19 A. No, I would not. It would not be  
20 economic for just POTS.

21 Q. And then, lastly, I don't have a copy but  
22 Mr. Bowen showed you a document which he represented



1       was an SBC document from a Project Pronto  
2       collaborative. Do you recall him showing you that  
3       document?

4               A. Yes, I do.

5               Q. Have you ever seen that document before  
6       today?

7               A. No, I have not seen that document before  
8       today. I know Mr. Bowen had it with him in Texas, but  
9       I did not look at it in Texas either, as I recall.

10              Q. And you are not the author of that  
11       document?

12              A. No, sir, no, I am not.

13              Q. Now, Mr. Bowen did show you a page out o f  
14       that document and I think he referred to a particular  
15       individual at SBC who he represented was the author of  
16       that page; do you recall that?

17              A. Yes, I do.

18              Q. Do you know what that page of that  
19       document was intended to show?

20              A. No, I do not.

21              Q. Have you ever had any discussion with the  
22       individual that Mr. Bowen identified as the author of

1       that page, about what that page is intended to show?

2               A. No, I have never talked to Mr. Wallace  
3       about that document or that page.

4               MR. BINNIG: That's all I have at this point.

5               MR. BOWEN: I do have a couple, Your Honor,  
6       Thank you.

7                       REXCROSS EXAMINATION

8               BY MR. BOWEN:

9               Q. Mr. Lube, in terms of your testimony just  
10       now about your assertion that, even if they wanted to,  
11       ILECs could not provide voice-over DSL because those  
12       would be advanced services and those are under merger  
13       conditions currently, the ILECs are currently -- I am  
14       sorry, the SBC ILECs are currently prohibited from  
15       doing that; do you recall that?

16               A. Yes, on a retail basis.

17               Q. They have to do it via a separate sub;  
18       right?

19               A. The ILECs would have to have an affiliate  
20       do that rather than the ILECs doing it. It's not a  
21       subsidiary of the ILEC.

22               Q. No, SBC has to do that via a separate

1 data subsidiary from the ILEC; correct?

2 A. That's correct.

3 Q. But SBC owns both those companies; right?

4 A. Yes, they do.

5 Q. You mentioned the merger conditions,  
6 isn't it correct that the merger conditions are not  
7 perpetual, that is the condition of a separate sub  
8 being maintained is not perpetual?

9 A. Yes, that's true.

10 Q. And, in fact, on the occurrence of any of  
11 a number of events, the separate sub requirement no  
12 longer applies; isn't that right?

13 A. That's my understanding.

14 Q. Isn't one of those events the simple  
15 passage of 42 months from the date the merger became  
16 effective?

17 A. I don't recall whether it was 42 or 48 or  
18 36. There are so many months involved, is what I  
19 recall reading.

20 Q. Do you and your counsel have a copy of  
21 the merger conditions available to you there?

22 MR. BINNIG: I do not.

1 THE WITNESS: I do not.

2 EXAMINER WOODS: Can you stipulate to 42  
3 months?

4 MR. BINNIG: I will stipulate it says what it  
5 says. He can quote it in his briefs. It's an FCC  
6 order.

7 MR. BOWEN: I have it electronically here. I  
8 can probably find it in just a moment.

9 Q. Okay, I have it. I am reading from it.  
10 Looks like there is a section in the Merger Conditions  
11 Order 12(a). I am going to read it to you and see if  
12 this refreshes your recollection. This is -- the  
13 Section 12 is entitled "Separate Advanced Services  
14 Affiliate Sunset Provisions." Do you recall reading  
15 something like that before in there in general?

16 A. I skimmed the order and I don't recall  
17 what Roman numerals or sections, whatever, but I do  
18 recall that there is a sunset period as I had already  
19 explained to you.

20 Q. Okay. I will read this out loud and you  
21 can check the screen, if you would like to. But just  
22 so the record is clear at this point in the

1 transcript, the text of the Order says, merger  
2 conditions portion of the Order says, "The  
3 requirements of this Section I requiring SBC/Ameritech  
4 to provide advanced services through one or more  
5 separate affiliates as described in this section shall  
6 terminate immediately upon any of the following  
7 events:" And Event Sub A says, "In each SBC/Ameritech  
8 state, the date that is the later of (i) 42 months  
9 after the merger closing date or (ii) 36 months after  
10 the incumbent LEC ceases to process trouble reports  
11 for the separate advanced services affiliate on the  
12 exclusive basis on the provisions of Subparagraph  
13 3(h)." Now, does that sound like something you have  
14 read before?

15 A. It sounds like something I have skimmed  
16 before. I recall the 36 and the 42. That's why I  
17 answered you a minute ago I wasn't sure if it was 42  
18 or 36, whatever.

19 Q. Isn't it correct that the simple passage  
20 of three and half years from merger closure date, upon  
21 that passage of that time, the requirement you have to  
22 have a separate sub in Illinois is removed?

1 A. That's what it would mean to me.

2 Q. So do you know when the merger closing  
3 date was approximately?

4 A. Fall of '99 or early, I guess, yeah, fall  
5 of '99 sometime, I think.

6 Q. Let's assume it's fall of '99. What's  
7 three and a half years from the fall of '99?

8 A. Do you have a calculator?

9 Q. Is that spring of next year?

10 A. Let's see. No, it's spring of -- let me  
11 think. You said three and a half years, right? So  
12 that would be 2001, so it would be the spring of 2003.  
13 So not next year.

14 Q. All right. But once that time period is  
15 passed, I take it that you will agree, that you would  
16 have the right to provide voice-over DSL simply by  
17 rolling AADS back into or into Ameritech Illinois?

18 A. I didn't dispute that or say that wasn't  
19 true. I mean, we have that legal right. I don't know  
20 that we would do that, but we would have that legal  
21 right.

22 Q. Okay. And the proposed or the currently

1 contemplated roll out for the availability of the  
2 technology to do voice-over DSL, if I recall from what  
3 I showed you, is second quarter 2002; right?

4 MR. BINNIG: I will object to that. It  
5 assumes facts not in evidence.

6 MR. BOWEN: Do I need to get the document  
7 back?

8 MR. BINNIG: The document has no foundation  
9 in it, Mr. Bowen.

10 Q. Well, it will stand for what it stands  
11 for. Mr. Lube, do you have any reason to doubt the  
12 authenticity of the document I showed you?

13 A. No, I don't, but my response a minute ago  
14 under redirect was only that, under the present merger  
15 conditions, the ILECs are not allowed to provide  
16 voice-over DSL on a retail basis.

17 Q. For now?

18 A. For now.

19 Q. Okay. But coming back to the document  
20 that talked about voice-over DSL, you were not there  
21 at that meeting, you testified; correct?

22 A. That's correct.

1           Q. Is there any basis on which you believe  
2           that the document I showed you is not authentic?

3           A. I have no basis to know either way.

4           Q. That's something you could check,  
5           obviously; isn't it?

6           A. Yes, I could.

7           Q. Or the Company could check overnight;  
8           isn't that true?

9           A. I don't know about overnight.

10          MR. BINNIG: My objection didn't go to  
11          authenticity. It went to foundation as to what the  
12          document means.

13          Q. Are you aware that a meeting did occur in  
14          Dallas of October 24 of last year addressing Project  
15          Pronto for CLECs?

16          A. Despite the fact that I was not  
17          physically there, I am aware that a meeting took  
18          place?

19          Q. A meeting took place in Dallas on that  
20          date; is that correct?

21          A. That's my understanding.

22          Q. You said in response to another question



1 from your counsel that voice-over DSL would not be  
2 economical for just POTS; did I hear that correctly?

3 A. Yes, sir, that's my belief based on my  
4 limited knowledge of the technology. But I think  
5 that's a fairly intuitive situation. If the customer  
6 doesn't want DSL, why would the customer need a  
7 special modem to put voice over ADSL signal. All they  
8 want is just POTS. There are existing vehicles in the  
9 network today to provide POTS.

10 Q. What if the customer wants four voice  
11 lines?

12 A. That might be a different answer if you  
13 are talking more than one POTS line. I guess that  
14 would have to be looked at on a quantitative basis.

15 Q. But your assertion that it wouldn't be  
16 economical is not based on any actual analysis; is it?

17 A. As I explained just a couple seconds ago,  
18 it's intuitive to me that for one POTS line at least,  
19 and maybe more, that it would not be economical to  
20 have that extra hardware there just to provide POTS.

21 Q. Do you recall the question I just asked  
22 you? I asked you whether it is based on an actual

1 analysis or not. The answer is no; isn't it?

2 A. Yes, sir, that's correct.

3 MR. BOWEN: That's all I have. Thank you.

4 MR. BINNIG: Nothing, Your Honor.

5 EXAMINER WOODS: Ms. Hightman, any questions?

6 MS. HIGHTMAN: No.

7 EXAMINER WOODS: Let's go off the record.

8 (Whereupon there was then had  
9 an off-the-record  
10 discussion.)

11 C A R O L A. C H A P M A N

12 called as a Witness on behalf of Ameritech Illinois,  
13 having been first duly sworn, was examined and  
14 testified as follows:

15 DIRECT EXAMINATION

16 BY MR. BINNIG:

17 Q. Good afternoon or evening, Ms. Chapman.

18 A. Good evening.

19 Q. Can you state your full name and business  
20 address for the record.

21 A. Carol A. Chapman, Four Bell Plaza, Room  
22 1370.05, Dallas, Texas 75202.

1           Q. Ms. Chapman, do you have with you three  
2 documents, the first of which is identified as  
3 Ameritech Illinois Exhibit 8.0 consisting of 21 pages  
4 of typed questions and answers?

5           A. Yes.

6           Q. And is this document your direct  
7 testimony on rehearing in this proceeding?

8           A. Yes.

9           Q. Was it prepared by you or under your  
10 supervision and direction?

11          A. Yes.

12          Q. Do you have any additions or corrections  
13 to Ameritech Illinois Exhibit 8.0?

14          A. Yes, I do.

15          Q. Tell us what those are, please.

16          A. On page 15, line 6, we need to delete the  
17 word "this" between "exactly" and the "the" at the end  
18 of the line.

19                 And on page 17, line 15, need to replace  
20 the words "HFPL UNE" with "cross connects." And  
21 that's all I have on that document.

22          Q. Let's go to the next document that's

1       entitled "The Rebuttal Testimony on Rehearing of Carol  
2       Chapman on Behalf of Ameritech Illinois." It is going  
3       to be marked as Ameritech Illinois Exhibit 8.1 for  
4       identification. And this is a document that consists  
5       of eleven pages of typed questions and answers and an  
6       attached Schedule CAC-1?

7               A. That's correct.

8               Q. And was this rebuttal testimony prepared  
9       by you or under your supervision and direction?

10              A. Yes.

11              Q. Do you have any additions or corrections  
12       to Ameritech Illinois Exhibit 8.1?

13              A. Yes, I do. On page 1, line 6, the  
14       question should end at "name." So it should be  
15       "name." And then delete the comma and "Title and  
16       Business Address."

17                      And then on page 4, line 9, after the  
18       word "network" and before the word "when," the comma  
19       should be after the word "network" and the space  
20       should go before the word "when."

21                      And just needed on the next line on line  
22       10, needed a space after the word "met" and the

1 period. That's all for that document.

2 Q. Turning to what is going to be marked for  
3 identification as Ameritech Illinois Exhibit 8.2  
4 entitled "The Surrebuttal Testimony on Rehearing of  
5 Carol Chapman on Behalf of Ameritech Illinois," was  
6 this exhibit prepared by you or under your supervision  
7 and direction?

8 A. Yes.

9 Q. Do you have any additions or corrections  
10 to make to this exhibit?

11 A. Yes, just two. On the first page, line  
12 5, we just need a period at the end of that sentence.

13 And then on page 10, the words  
14 "operational feasibility" should be "operationally  
15 feasible," and that's all.

16 MR. BOWEN: What line was that?

17 THE WITNESS: I'm sorry, that was line 6 on  
18 page 10.

19 MS. HIGHTMAN: It should say what?

20 THE WITNESS: Where it says "operational  
21 feasibility," it should just say "operationally  
22 feasible."

1           Q. And with respect to the schedule attached  
2 to your rebuttal testimony, Schedule CAC-1, does that  
3 accurately reflect what it purports to reflect?

4           A. Yes, it does. I got that from the FCC  
5 web site.

6           Q. If I were to ask you today the questions  
7 set out in Ameritech Illinois Exhibit 8.0, 8.1, and  
8 8.2, as you have corrected them today, would your  
9 answers be the same as corrected today?

10          A. Yes.

11          MR. BINNIG: Your Honor, I would move for the  
12 admission of Ameritech Illinois Exhibits 8.0, 8.1,  
13 8.2. I would note that 8.1 includes the attached  
14 Schedule CAC-1. And the witness will be available for  
15 cross examination bright and early tomorrow morning.

16          MS. HIGHTMAN: One thing we can do tonight is  
17 identify as Cross Exhibit H the portion of the  
18 transcript from Docket 00-0393 that covers Ms.  
19 Chapman's testimony, as we agreed.

20          EXAMINER WOODS: Okay. Any objection to the  
21 introduction in the record of these exhibits? Hearing  
22 no objection, they are admitted without objection.

1                   (Whereupon Ameritech Illinois  
2                   Exhibits 8.0, 8.1 and 8.2  
3                   were marked for purposes of  
4                   identification as of this  
5                   date and admitted into  
6                   evidence.)

7                   EXAMINER WOODS: Let's go off the record.  
8                   (Whereupon there was then had  
9                   an off-the-record  
10                  discussion.)

11                  EXAMINER WOODS: This cause is continued to  
12                  10:00 a.m. January 5, 2001.

13                  (Whereupon the hearing in this  
14                  matter was continued until  
15                  January 5, 2001, at 10:00  
16                  a.m. in Springfield,  
17                  Illinois.)

18                  (Whereupon Hearing Examiner's  
19                  Exhibit A was marked for  
20                  purposes of identification as  
21                  of this date.)

22

1 STATE OF ILLINOIS )  
 )SS  
2 COUNTY OF SANGAMON )  
CASE NO.: 00-0312 & 00-0313 (Consolidated)  
3 TITLE: COVAD COMMUNICATIONS COMPANY  
RHYTHMS LINKS, INC.  
4

CERTIFICATE OF REPORTER

5 We, Cheryl Davis and Carla Boehl, do hereby  
6 certify that we are court reporters contracted by  
7 Sullivan Reporting Company of Chicago, Illinois; that  
8 we reported in shorthand the evidence taken and  
9 proceedings had on the hearing on the above-entitled  
10 case on the 4th day of January, 2001; that the  
11 foregoing pages are a true and correct transcript of  
12 our shorthand notes so taken as aforesaid and contain  
13 all of the proceedings directed by the Commission or  
14 other persons authorized by it to conduct the said  
15 hearing to be so stenographically reported.

16 Dated at Springfield, Illinois, on this 5th day  
17 of January, A.D., 2001.

18

19

20 Certified Shorthand Reporter

21

22